EFFECTS OF THE FIRM'S SOCIAL INVOLVEMENT ON CONSUMER BEHAVIOR

By

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by

André Carlos Martins Menck

I dedicate this dissertation to my beloved wife,

Maria Isabel,

and to my dear kids,

Angélica and André Frederico.

Without their support, this work would have never been completed.

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Firms' social involvement is common practice in the modern world. The issue has received intense attention in general and academic literature. In particular, the management literature has focused on corporate social responsibility. Societal obligations, altruistic behavior, and economic motivations have been shown to motivate social involvement. Among economic justifications, the effects of social involvement on the workforce and on funding sources have been studied. This dissertation turns to the demand side effects, by investigating how a firm's social involvement affects consumer behavior.

Drawing from the literature on products social value—in particular on symbolic value—and on signaling theory, this dissertation hypothesizes direct and indirect effects of social involvement on consumer utility. The former arises from the value consumers place on social involvement and is posited to be moderated by personal social values. The latter derive from social involvement signaling shared values, hence reducing the uncertainty associated with the firm's claims of attribute performance.

To capture the proposed effects on consumer behavior, a random utility model is developed. Social involvement is assumed to affect both the consideration and choice of a product or service.

Data from conjoint choice tasks in a mail-out survey served to estimate the model parameters. Real brands of four categories were utilized, along with fractional factorial designs for between-subject manipulations of social involvement and expertise, and within-subject manipulations of price and attributes. Consistent results across the brands and categories support consumer-based economic justification for social involvement. The effects are found to be substantial both for consideration and choice.

Mixed results suggest that personal social values do not necessarily moderate social involvement. This may be credited to social involvement having symbolic consumption value, which suggests that personal value-based segmentation is not relevant.

The hypothesized effect of increased weight of the attribute level in consumer utility in the presence of high social involvement received only limited support. Evidence was found that this effect was present but was offset by the reduction in the sensitivity to the attributes under a strong manipulation of social involvement. Finally, price sensitivity was found to decrease significantly in the presence of social involvement.

CHAPTER 1
INTRODUCTION

Firms that engage in social actions are a common and increasingly observed phenomenon in the modern business world. Firms have been spending more and more heavily on philanthropy (Carlin 1995, Reder 1995), sponsorship of social causes (Smith and Stodhill 1994), environmental protection and awareness (Porter and Van Der Linde 1995), and social reputation construction (Herremans et al. 1993). Examples of firms' programs with social involvement abound. Walmart "buys American." Target develops community involvement programs and contributes to local schools. The Home Depot helps relief efforts after natural disasters. McDonald's sponsors housing for families of children undergoing prolonged health treatment, and American Airlines provides the transportation. American Express supported the renovation of the Statue of Liberty. Virtually every company gets involved in at least some kind of the so called socially responsible activities and communicates it to its customer base. For instance, for every dollar obtained by American Express for Lady Liberty, it spent more than three dollars making sure existing and potential customers learned of it (Reder 1995).

A large body of research has devoted attention to the phenomenon of firms' social involvement, particularly as corporate social responsibility and performance (Sethi 1995, Wood 1991). However, little research has been done on the effects of a firm's social involvement on consumers. Quoting a previous citation of a retail practitioner, "we do all these good things . . . we build buildings, give money away . . . but we don't know if we get anything out of it" (cited in Brown and Dacin 1997, p. 68).

Notwithstanding, social involvement has been the subject of intense academic interest, particularly by the management literature. In this literature, explanations for organizations engaging in socially responsible actions generally point to the firm's societal obligations, managerial altruism, and drive for profits. Social involvement arising from societal obligations has been posited to have two sources. It can be either an obligation of business in society—i.e., the organization obtains its resources from society, therefore, has to help solving problems that afflict society—or a way of remedying any harm that its activities may cause (Wartick and Cochran 1985). Managerial altruism views a firm's social involvement as a result of the altruism of its managers exercising their discretion in running the business (Wood 1991). Finally, social involvement can be regarded as activities aimed at maximizing profits. This approach looks at the effects of a firm's social involvement on diverse groups of people on whom the firm depends (i.e., the firm's stakeholders). Most of the research in this line concentrates on the supply side—granting access to capital from socially concerned investors by constructing a good social reputation (Graves and Waddock 1994), or increasing job motivation of employees sensitive to social issues by supporting social causes (Morris et al. 1990). Studies on the effects of social involvement on the demand side are conspicuously rare. In particular, the marketing literature on the phenomenon is scant and has prompted calls for the research on the topic by the Marketing Science Institute (1992).

The main goal of this dissertation is to investigate the effects of a firm's social involvement on consumer behavior. The objective is to add to the present knowledge by looking at different ways by which choice can be affected, as opposed to simply crediting social involvement with construing a better corporate image among consumers. The commonly held idea in the non-academic literature, building a better image among consumers, suffers from lack of specificity. It does not reveal the ways by which consumers may regard and value a firm's social involvement.

Learning how social involvement affects consumer behavior may help managers define the importance of socially responsible actions and programs to their businesses. It may let them distinguish between actions that aim at pleasing certain groups or segments of consumers from actions designed to motivate specific types of behavior from existing and potential customers. Moreover, it may assist them in determining the amount of investment they may want to make in social involvement. In addition, managers may be able to make better marketing mix decisions if they know how consumer perception of key marketing variables, such as price and functional attributes, is affected by socially responsible behavior.

In order to examine the effects of a firm's social involvement on consumer behavior, a conceptual framework is developed. This framework builds on the firm's motivation to engage in socially involved behavior, and on the symbolic value and signaling theories. Based on this framework, a choice model capturing the effects of social involvement is proposed. Then, probabilistic choice models are estimated to assess the likelihood of a consumer considering and choosing a brand, as a function of the firm's social involvement, the consumer's personal values, and other relevant firm and product attributes.

In the next section, the definition of social involvement as used throughout this research is advanced. Then, the basic effects of social involvement on consumer behavior are outlined. A description of the contributions of this research follows. Finally, an outline of this dissertation is offered.

Social Involvement Defined

Actions comprising organizational social involvement have been studied under the label of "corporate social responsibility," mainly in the management literature. Several definitions have been offered for corporate social responsibility (Ackerman and Bauer 1976, Clarkson 1995, Davis 1960, Friedman 1962, Lerner and Fryxell 1988, Lydenberg et al. 1986, Manne and Wallich 1975, Roberts 1992, Sethi 1975, Steiner 1972). In Chapter 2, a discussion of the nuances of the existing definitions is introduced. At this point, it suffices to say that the proposed definitions suffer from one of two difficulties. First, most of the existing definitions imply a causal explanation for the firm's engagement in social actions, much in the fashion of the initial definition by Davis (1960). According to Davis, corporate socially responsible actions are "businessmen's decisions and actions taken for reasons at least *beyond* the firm's direct economic or technical interest" (Davis 1960, p. 70, emphasis added). Clearly, because it precludes economic motivation for a firm's social involvement, altruistic volition underlies such a definition, excluding other kinds of motivation for the firm's engagement (such as the economic motivation of increasing sales). The second difficulty arises in definitions based on the enumeration of types or categories of actions as being socially responsible. The problem with such type of definition resides in the lack of comprehensiveness and the differences in the scope of the categories,[1] as well as in the dubiousness of some enumerated categories.[2]

Most importantly, the definitions proposed to the present fail to delimit precisely whether an action that apparently benefits society is a corporate socially responsible behavior or simply a tool to promote products or services. For instance, American Express' campaign to help remodel the Statue of Liberty had a socially desirable target but was tied to the usage of its credit card. Similarly, it is not clear in previous definitions whether sponsoring a national Olympic team can be regarded as a socially responsible action, given the social interest behind it, or solely an action designed to enhance brand exposure, deprived of social meaning.

In order to address the aforementioned difficulties, I adopt a consumer-centered construct—if the individual consumer feels the action is concerned with a socially related issue, then it can be classified as such, regardless of the firm's motivation for engaging in the action. For instance, to some, Philip Morris sponsoring the Virginia Slims women's tennis tournament can be perceived as social involvement—Philip supporting women's issues. To others, it can be a pure promotional action with no social content.

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[1] For instance, two generally used categories are "charity contributions" and "environmental concern" (e.g., Lydenberg et al. 1986, Roberts 1992). The first refers to a very specific kind of action, while the second can be represented by a large spectrum of actions.

[2] For instance, not participating in military contracts—a commonly adopted class of socially responsible actions—is not necessarily an affirmation for every person.

Additionally, it is more appropriate to speak of social *involvement*, instead of *responsibility*, in order to avoid the connotation of "having to" engage in actions that benefit society. Moreover, the entity associated with the action is not necessarily the corporation itself, but it can be a product or brand. Therefore, the focus of this paper is with regard to actions of social involvement, defined as *policies or actions which identify a company, and its products or services with a concern for society-related issues.*

How Social Involvement Can Affect Consumers

Apart from stockholders who accept less than the maximum possible returns on investment, and from employees who trade a better work environment for earnings, consumers are the ones who ultimately pay for a firm's social involvement. This contrasts with a scarcity of marketing papers dedicated to the effects of social involvement on consumers.

The scarce marketing research on social involvement has looked at the process of a firm's involvement (Murray and Montanari 1986), the ethics of the firm (Robin and Reidenbach 1987), and the firms' objectives when engaging in campaigns with social dimensions (Drumwright 1996). Only recently a paper focusing on the consumer as the unit of analysis (Brown and Dacin 1997) has been published. Specifically, it investigates the effects of corporate associations on consumer attitudes. The study demonstrates that a firm's social involvement (or "corporate social responsibility") works together with the firm's expert reputation ("corporate ability") to affect the attitude towards a firm's product through a general construct of "corporate evaluation." However, it falls short of investigating possible mechanisms by which this “corporate evaluation” represents a source of utility for the consumer.

This research attempts to increase the knowledge of the effects of social involvement on demand by investigating how a firm’s social involvement affects consumer behavior. Specifically, the purpose is to investigate how the choice process is affected. This research envisions three distinctive ways by which choice can be affected by social involvement. First, social involvement can affect the choice set formation, that is, the inclusion of a product or service in the set of considered alternatives. Second, social involvement can be regarded as an attribute *per se*, which adds to the utility generated by the product or service’s functional attributes. Third, social involvement may affect the very perception of the promised functional attribute level. More specifically, this research examines possible effects of the firm’s social involvement on consumer beliefs about the functional attributes of the products that it markets. This follows a framework in which social involvement serves the purpose of reducing uncertainty in functional attribute evaluation, as detailed in subsequent chapters.

Contributions

The major contribution of this research resides in the substantive area. First, by investigating how social involvement affects behavior, this research addresses the concerns that managers have about the outcome of their investments. More importantly, it helps to address the strategic employment of social involvement according to a firm’s objectives. Second, by using a choice setting, it allows a comparison of the consumer’s sensitivity to price with social involvement, a result long sought in the literature, with conflicting outcomes (e.g., Adrian and Dupré 1994, Rushmore 1993). Third, it aids in understanding whether social involvement practices affect different social consciousness-based segments of consumers.

From a theoretical perspective, the contribution of this research relates to investigating the cross-effects between social involvement and the product's functional attributes, depending on the uncertainty associated with their performance. Such interaction opens the way for introducing social involvement as a cue used by consumers for uncertainty reduction (as it is explained in Chapter 3). In this regard, this study expands previous research by Brown and Dacin (1997) by evaluating the effect of social involvement on attributes varying in associated risk. At the same time, it provides a more basic understanding of social involvement as a source of utility, instead of simply having a general corporate evaluation construct affecting the way a consumer perceives a product.

Specifically, the contributions of this dissertation to the understanding of social involvement are as follows:

- It explores a firm's economic motivation for social involvement from the demand side. Consumers are regarded as stakeholders whose interests on the firm's social involvement reflect on the value they place on the firm's product or service. This opens way to using social involvement as a strategic tool to extend a firm's competitive performance.

- A framework incorporating diverse potential effects of a firm's social involvement on consumer behavior is offered. Social involvement is posited to be valued by consumers, hence affecting the utility they perceive on a product or service. The utility of social involvement is posited to be not only as compensatory in its nature, but also as non-compensatory. First, consumers are assumed to require minimum levels of social involvement even to consider purchasing a product or service. Second, social involvement is regarded as affecting the way consumers perceive, hence value other components of the utility function. This arises from a signaling perspective in which social involvement is viewed as a reducer of the uncertainty on the performance of the functional attributes of a product or service. Furthermore, social involvement may affect the price perception, either by reducing the importance consumers place on price, or by signaling that unnecessary costs have been added to a product or service's price.
- A model of the effects of social involvement incorporating both the compensatory and non-compensatory effects of social involvement on consideration set formation and on choice behavior is offered. The estimation of this model allows the understanding of the different effects of social involvement on consumer behavior, its evaluation on a cost-effectiveness analysis, and the consequent managerial implications.
- The use of random choice modeling, although not new in the marketing literature, contributes to demonstrate the ability of such method to unveil direct and indirect effects of constructs on choice behavior.

Dissertation Outline

The reminder of this dissertation is divided into six chapters.

Chapter 2 reviews the literature on social responsibility. It starts by looking at the definition of the construct of corporate social responsibility and presents an evolutionary view of the existing models of corporate social responsibility. The antecedents of corporate social responsibility are emphasized. Next, the stakeholder theory and the underlying resource-dependency theory are brought into perspective to build the motivations and consequents of social involvement for the firm. These point out the pertinence of considering the value of social involvement for consumers.

In Chapter 3, the values consumers may assign to social involvement are discussed. The chapter adopts a consumer's perspective to explore two ways by which consumers may draw value from a firm's social involvement. First, consumers regard social involvement as a source of value *per se*. The chapter brings this view based on the literature on the social value consumers attribute to products and services. Second, social involvement may be valuable to consumers in an indirect way. To explore this track, the signaling theory is used. It is presented as a potential source of indirect effects of social involvement on consumers utility.

Based on the discussions on the previous chapter, a framework for consumer utility formation is proposed in Chapter 4. Using this framework, a choice model is derived, hypotheses are formulated, and an analytical model to test the hypotheses is developed.

Chapter 5 introduces the data collection method. Particular importance is placed n the pretest used for the selection of treatments and research settings. Also, the development of the measures and manipulation checks is presented.

The results are presented in Chapter 6, with the estimation of the models that best suit the data, *vis-à-vis* the conceptualizations introduced in Chapter 4.

Finally, Chapter 7 presents a discussion of the results in light of the conceptualizations made. It covers the limitations of the research, and future research needed to address the remaining questions. Managerial implications are presented, and a conclusion is offered.

CHAPTER 2
REVIEW OF THE CORPORATE SOCIAL RESPONSIBILITY LITERATURE

The literature on corporate social responsibility is relevant to understanding the antecedents of a firm's social involvement. This chapter reviews this literature, focusing on the evolution of the models of corporate socially responsible behavior. Attention is focused on the main conceptual models that have dominated academic thinking about corporate social responsibility. Effort is directed toward on identifying the antecedents, consequents, main achievements, and limitations of these models. The following section introduces the stakeholder framework. Under this framework, society as a stakeholder is discussed. In particular, the review covers recent criticism of the ability of the existing models to capture the reasons why firms engage in socially responsible behavior, and the importance of consumers as stakeholders. The chapter concludes by summarizing the motivations and consequents of a firm's socially responsible behavior. Specifically, it identifies the role of consumers in a firm's motivation to become socially involved.

Corporate Social Responsibility

The review of the literature on corporate social responsibility begins by surveying the definition of corporate social responsibility throughout the literature. Next, four models that summarize the mainstream thinking on corporate social responsibility are addressed. The section concludes by presenting an overall view of the models in terms of their contributions and limitations in explaining why firms engage in socially responsible activities.

Corporate Social Responsibility Defined

The literature most pertinent to why firms engage in socially responsible activities is on corporate social responsibility (hereafter, CSR). In spite of decades of research and hundreds of publications, corporate social responsibility as a construct lacks clarity (Clarkson 1995). In order to reach an appropriate definition of socially responsible behaviors, the various approaches to the term are reviewed below, along with explanations of their shortcomings. Then, the definition used in this research is presented.

Carroll (1979) summarized a wide variety of meanings attributed to CSR: going beyond profit-making (Backman 1975, Davis 1960); going beyond economic and legal requirements (McGuire 1963); voluntary activities (Manne and Wallich 1975); economic, legal and voluntary activities (Steiner 1972); concentric, ever widening circles (Davis and Blomstrom 1975); concern for the broader social system (Eells and Walton 1961); and giving way to social responsiveness (Ackerman and Bauer 1976, Sethi 1975). Despite covering different dimensions of a firm's socially responsible behaviors, all these definitions have in common the underlying assumption that an altruistic motivation drives firms to engage in socially responsible behavior. This is clear beginning with Davis' definition (1960, p. 70), which states that CSR behaviors are "businessmen's decisions and actions taken for reasons at least *beyond* the firm's direct economic or technical interest" (emphasis added).

More recently, researchers recognized that what they were in fact studying was not the firms' responsibility, but actions or behaviors, and began to develop models of corporate social *performance* (Carroll 1979, Wartick and Cochran 1985, Wood 1991). In such models, CSR is regarded as a set of principles or categories which motivates the behavior. In each of these models, the principles include at least some extent of altruism in their formulation. Hence, the definition of socially responsible behavior in these models is ultimately based on the assumption of altruism of some of its constituents.

Another approach has been the use of categories of behaviors to define CSR behavior. CSR behavior has been assumed to be either a single kind of action (e.g., corporate philanthropy, Wokutch and Spencer 1987), some sort of blend of actions (e.g., an index reflecting the percentage of earnings given to charity and the quality of social information disclosed, Lerner and Fryxell 1988), or an overall measure of social reputation (e.g., Fortune magazine's annual survey of corporate reputation, McGuire, Sundgreen and Schneeweis 1988).

An attempt to develop a categorization scheme was made by Lydenberg, Martin and Strub (1986), who evaluated the corporate socially responsible practices of a large number of U.S. companies according to 1) charity contributions (as a proxy for community relations), 2) equal opportunity policies for employees, 3) environmental concerns, 4) product safety, 5) treatment of women and minorities (affirmative action programs), 6) participation in military contracts, 7) participation in nuclear power contracts, and 8) policies toward South Africa (during the apartheid).[1]

This type of categorization scheme has some problems. First, the scope of each area varies a lot. For instance, charity contributions are a specific kind of action, while environmental concerns can represent a large spectrum of actions. Second, not all of the categories apply to every kind of business. For instance, issues related to South Africa may not apply to firms which simply do not consider that market for reasons not related to social considerations. Consequently, such firms will have a possible positive CSR evaluation just for not being in a market that is of no interest to them to begin with. Third, in some categories, it is not clear which direction represents a CSR behavior. For example, participation in military contracts is not necessarily a negative CSR behavior, even if it has been portrayed so in some classifications.

Such problems are specific to Lydenberg and his colleagues' (1986), and to some specific classifications of CSR activities. Nonetheless, any attempt to define CSR behavior using categories will present the problem of lack of comprehensiveness.[2] Take the categorization above. Several types of actions which can be considered CSR behavior are difficult to fit in the proposed categories. For example, Walmart's "Buy American" can be readily regarded as a socially responsible behavior, to the extent that its purpose is to protect jobs in the community in which the firm operates. However, it could hardly be classified as some sort of charity action or neighborhood involvement, the closest category matches for Walmart's behavior. Similarly, Ben & Jerry's support of suppliers does not match any of the types above. Furthermore, the classification does not contemplate commonly employed actions that can be perceived by some as having a socially desired motivation. This is the case of the sponsorship of sports teams (such as of some Olympic team). For example, take Budwieser's sponsorship of the U.S. national soccer team in the World Cup. To many, it can confer on Budwieser an image of being more socially responsible than it would if the sponsorship were of some professional basketball team, even if both events granted the same level of media exposure. The resistance in stating a category of CSR to accommodate certain cases of team sponsorships can be contrasted with the case of K-Mart and Fuji Film's associated campaign to help community junior soccer teams. In this case, the behavior could be more readily associated with CSR behavior towards the community's needs than Budweiser's action, even though K-Mart and Fuji's required the purchase of film development services! A similar problem would be found in trying to classify the campaign undertaken by American Express to help remodeling the Statue of Liberty for the Bicentennial commemorations. Knowing that the company donated millions of dollars to help this national aspiration may indicate a socially motivated behavior. However, American Express not only tied donations to the use of the AMEX card but also spent several dollars to publicize each dollar it gave to the cause. These examples indicate a gray area, which can be found to some extent in any CSR behavior, when one tries to define it from the organization's perspective.

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[1] To cite an example, Graves and Waddock (1994) used a weighted average of these eight categories to define a measure of CSR behavior.

[2] Hay, Gray and Gates (1976) also define CSR behavior in terms of categories.

The definition adopted in this paper avoids both defining socially responsible behavior based on some assumption on what is motivating it and being trapped into the difficulties of establishing categories. It also solves the issue of having to classify *a priori* a behavior as a socially responsible one. Murray and Montanari (1986) noticed the need of incorporating into the definition the side affected by the behavior. In their definition, "a socially responsible firm is the one that accomplishes—and *is perceived to accomplish*—the desired ends of society ..." (emphasis added, Murray and Montanari 1986, p. 816). Given that what matters are the implications of the behavior, it is better to fully reverse the perspective, switching the focus from the entity which practices to the entity that observes and is affected by the behavior. Roberts (1992) refers to CSR activities as "policies or actions which identify a company as being concerned with society-related issues" (p. 595). Under this view it matters less whether an organization or a researcher defines a behavior as socially responsible, and more how the behavior is perceived by people in general or by specific groups of people. Hence, socially responsible behavior is a consumer defined construct and does not depend on the firm's motivation for undertaking it—be it an explicit intent to solve a social issue for altruistic reasons, a means of promoting products, or a way of associating a good image with a brand name. By moving the focus of the definition of socially responsible behavior to the affected person's perception, the definition does not have to rely on any assumption of what motivates the behavior. The reasons for engaging in the behavior become the object of the investigation. Furthermore, it intrinsically addresses the issue of some behaviors having greater or smaller social responsibility than business content, because it leaves the question to whomever observes or is affected by the behavior. Sponsoring an Olympic team, using an environmentally protective device, following equal opportunity/ affirmative action guidelines, or giving to charity, will all be considered socially responsible behaviors to the extent they tie to consumer's views as being society-related issues. Hence, another advantage in this approach is to admit heterogeneity in consumers' perception of the extent a behavior is socially responsible.

Another issue in the definition of socially responsible behavior refers to the entity it is associated with. Although it is impossible to completely separate an organization and its products or services in the way they are perceived, some behaviors may be more relevant to people interested in the company itself, such as stockholders, employees, or regulating agents, while others may be more pertinent to people interested in the company's products. For this reason, some of the socially responsible behaviors are not necessarily associated with the corporation's name, but with its products. To make clear that the association of the behavior can be made either with the organization or with one or more of its products, it is desirable to expand Roberts' (1992) conceptualization to explicitly include the company and its products or services.

Finally, it is better to speak of social *involvement*, for two reasons. First, unlike the notion of *responsibility*, it avoids the connotation of obligation to engage in actions benefiting society. Second, unlike the idea of corporate social *performance*, it does not convey the idea that some social performance is an objective *per se* of an organization. It is preferable to leave open the possibility that socially responsible behaviors are tools which can be employed to achieve other organizational objectives.

Therefore, this research uses the idea of *social involvement*, at the same time more general and less binding than the idea of corporate social responsibility. Hence, the definition of social involvement adopted in this research is *policies or actions which identify a company or its products or services with a concern for society-related issues.*

Models of Corporate Social Responsibility

The early debate on CSR was concerned with the general role of business in society. The general question asked was whether or not the corporation should be responsible for solving social issues in order to justify its existence (Davis 1960, Davis and Blomstrom 1975, Friedman 1962, Manne and Wallich 1972, McGuire 1963, Sethi 1975, Steiner 1972). No antecedent for engaging in CSR behavior was sought, because the very responsibility or obligation of engaging in the behavior was at stake (Ackerman and Bauer 1976, Wartick and Cochran 1985). The switch in the debate to what drives a corporation to engage in socially responsible behavior began with the model of corporate social responsiveness of Ackerman and Bauer (1976) and continued in the subsequent models of corporate social performance (Carroll 1979, Ullmann 1985, Wartick and Cochran 1985, Wood 1991).

The following section reviews the mainstream models since Ackerman and Bauer's (1976). The objective of the review is to show how modeling CSR behavior has evolved towards (a) involving the firm's strategy, (b) considering both the economic and noneconomic responsibilities of the firm, and (c) separating the firm's from society's level of analysis. Furthermore, the review highlights the fact that to date models have not overcome the problem of having to rely essentially on altruism as the most intrinsic motivation for a firm's social involvement, except when based on economic supply-side justifications.

Ackerman and Bauer's model of corporate social responsiveness

The idea of corporate social responsiveness (Ackerman 1975, Ackerman and Bauer 1976, Sethi 1979) began as an attempt to connect social issues with strategy and organization, social objectives with business objectives. The model of corporate social responsiveness is concerned with how a firm should respond to social pressures. Its declared aim is to bring in an operational model, as opposed to the less directive concept of corporate social responsibility (Ackerman and Bauer 1976). The model brings forth the concern with adequate fit between social demands and the firm's strategy, by stating that the best interest of the organizations is to be socially responsive in order to gain social legitimacy. Firms are implicitly regarded as social agents having to do good for society. In the model of corporate social responsiveness, the emphasis is not on the acceptance of a moral obligation but on the kind of managerial action, or strategy, in response to social issues (Ackerman and Bauer 1976, Carroll 1979, Sethi 1975). The focus of corporate social responsiveness is on the organization's responsive posture (Friederick 1978, cited in Carroll 1979). It is viewed as ranging from doing nothing, to being reactive, to being proactive to society's demands.

The main critiques of the model of corporate social responsiveness are that it does not provide orientation on which demands should be responded to, and that being responsive *per se* does not grant legitimacy (Wartick and Cochran 1985). Therefore, it could not replace the idea of CSR, as it intended. This critique is valid, to the extent that there must be a factor guiding the use of the firm's posture in responding to social pressures. However, a more basic criticism of social responsiveness can be made to the underlying assumption that business has the responsibility of doing good to society (to gain legitimacy). This implies that the guiding factor is an ethical/altruistic principle. This is not necessarily true, as an economic motivation may explain the response, not only responsiveness.

Carroll's model of corporate social performance

Carroll's (1979) model is the first of a family of corporate social performance models that attempt to harmonize economic and social objectives. The model proposed by Carroll (1979) is innovative in that it recognizes as components of corporate social performance (a) categories of social responsibility, (b) social issues, and (c) an organization's philosophy of social responsiveness. In contrast to the corporate social responsiveness view (Ackerman and Bauer 1976, Sethi 1979), this model does not see responsibility and responsiveness as alternative propositions but as interactive constituents of CSP. For Carroll (1979), the three components define an orthogonal, three-dimensional model of corporate social performance, which integrates responsibility, responsiveness, and social issues as determinants of social performance. Carroll (1979) categorizes the corporate responsibilities as economic (to produce goods and services for a profit), legal (ground rules of operation), ethical (society's norms, not necessarily codified into law), and discretionary (volitional or philanthropic, above society's determinations). In his view, however, Carroll (1979) maintains the prominence of "responding to society" over the other dimensions, by attributing to it a basic role. In Carroll's (1979) words, "corporate social responsiveness, which has been discussed by some as an alternate to social responsibility is, rather, the action phase of management responding in the social sphere" (p. 502). Such a view of "responding in the social sphere" indicates that the demands of society as a whole are viewed as the ultimate antecedents of social involvement.

The fact that at least two of the categories of corporate responsibility (ethical and discretionary) are not easily accessible, as well as the complexity imposed by the proposed orthogonality among the three dimensions of the model, make it difficult to test (Clarkson 1995). Moreover, the model falls short of explaining what course of action is expected from the organization facing social demands. This is because the starting point of the model is social responsibility, set in terms of hard to characterize ethical and discretionary categories. In fact, any social involvement that cannot be readily explained by economic or legal motivation may be attributed to the ethical or discretionary categories. The model not only relies on assumed categories of social responsibilities but is also solely descriptive, rather than prescriptive.

Wartick and Cochran's model of corporate social performance

Building on Carroll's (1979) framework, Wartick and Cochran (1985) proposed a model in which the three dimensions listed above can be integrated as "the principles of social responsibility, the process of social responsiveness, and the policies developed to address social issues" (p. 758). Their approach aims at recognizing that the three aspects proposed by Carroll (1979) are not dimensions in a single space but rather reflect different stages of corporate social performance. These stages are integrated as principles/process/policy. The principles/process/policy approach states that the firm has to satisfy society's expectations about its responsibilities, determine the approach to take when responding, and implement the responses to relevant issues. In this model, CSR is viewed as a philosophical orientation of business, in a macro sense. Corporate social responsiveness is referred to as its counterpart at the institutional level and is presented as aiming to comprise both the firm's capacity to respond and its approach in developing responses. Conversely, the corporate social performance takes shape at the organization level in policies of social issue management (identification, analysis and development of responses to social issues). This model also adds to Carroll's by explicitly assuming that the categories or principles of corporate social responsibility (economic, legal, ethical and discretionary) are grounded on two basic postulates: (a) a social contract is what guarantees the very existence of the firm, making it behave according to society's objectives; and (b) the firm acts as a moral agent within the society, therefore having to behave consistent with society's values (Wartick and Cochran 1985).

One difficulty with the Wartick and Cochran's model (1985) stems from the fact that it does not present an intrinsic way to balance economic and noneconomic responsibilities. Instead, it leaves the question open to the social contract of business and to the moral agent role of business. Their model incorporates economic responsibility "as one level of corporate social responsibility" (p. 764) but does not say anything about how economic responsibility relates to the three other levels (legal, ethical and discretionary). Therefore, even if their approach adequately solves the problem of business in general, it does not provide answers to firms in a competitive environment as to how they should allocate resources to social, versus economic issues. Specially, when the focus shifts from a general philosophy of doing business to institutional concerns, the model merely presents responsiveness as a function of the "capacity to respond to changing social questions," and to the "managerial approaches to developing responses." Hence, it does not give a definite direction for decisions in a competitive environment. In summary, since Wartick and Cochran's model presents the issue of corporate social performance in three concentric spheres of orientation, it fails to direct the competition among organizations. Trying to "minimize surprises" and defining "effective corporate social policies" (p. 767), as proposed, do not indicate any kind of behavior the firm should engage in to be successful, particularly taking into consideration the fact that other firms may be competing in the market. This suggests the lack of a firm's level strategic orientation regarding social involvement. As will become clear later in this chapter, the point here is that, while Wartick and Cochran (1985) consider social-issues management as being parallel to strategic-issues management (p. 766), these two areas deserve an integrated approach.

Wood's model of corporate social performance

Wood (1991) proposed a model that revisits the question of a firm's performance in its relationships with society, while maintaining a model structure similar to Wartick and Cochran's and keeping CSR as a driving force for corporate social performance. The main contribution of Wood's model (1991) is representing corporate social performance in a single level of analysis. Her objective was to remedy the difficulties of Wartick and

Cochran's model (1985), in that it tries to place the motivation for a firm's response to social issues in a more general and philosophical society-business relationship. Wood's (1991) main explicit criticisms of Wartick and Cochran's model (1985) were that (a) it addressed integration, not actions and outcomes, which are the accurate representation of performance; (b) social responsiveness was represented, as in Carroll's, by a typology of organizational responses (reactive, defensive, accommodative, and proactive), not processes; and (c) the model's third dimension was too restrictive, as it elected policies, not outcomes or behaviors, to address social issues. To address these problems, Wood (1991) placed social issues management as a process of social responsiveness, along with environmental assessment and stakeholder management, and left the third component of her model of corporate social performance to reflect the outcomes of corporate behavior. Thus, instead of using policies for the third dimension of corporate social performance, she correctly turns her attention to "outcomes of corporate behavior", in a principles/processes/outcomes approach. The outcomes include social impacts, programs, and policies.

As in previous models, Wood's model (1991) also refers to CSR as the principle that guides corporate social performance. Nonetheless, CSR is no longer viewed at the society-business relationship level of analysis, but as impacting three distinct levels—institutional, organizational, and individual. The institutional level refers to businesses as institutions that seek legitimacy from society. As Wood (1991) recognized, this principle "applies to all companies, regardless of their particular circumstances" (p. 696). At the individual organization's level, the principle of CSR is viewed as public responsibility, by which firms are responsible for "primary involvements," or behaviors concerning their functional economic tasks, and for "secondary involvements," the firms' effects on society from performing their primary involvements. In this view, firms "are not responsible for solving all social problems ... [but] are responsible for solving problems that they have caused" (Wood 1991, p. 697). Finally, at the individual level, CSR refers to managerial discretion, similar to Carroll's (1979) discretionary category, but now centered solely on managers, who, as moral actors, "exercise choice in the service of social responsibility" (Wood 1991, p. 696).

The fundamental contribution of Wood (1991) is to recognize that CSR gives legitimacy to the existence of business as a social institution. At this level, some social involvement is expected of any corporation, since society has the means to sanction deviant behavior (e.g., taxes and fines payment is enforced by society). Hence, CSR behavior grounded on legitimacy, concepts of social contract, and a firm's moral agency are not expected to lead to much variance in the behavior of corporations. Clearly, this is not what is observed in practice. Thus, Wood (1991) had to offer an alternative explanation, by evoking principles of public responsibility and managerial discretion. However, these principles have their own limitation to explain observed firms' behaviors. The limitation with public responsibility is that it narrows excessively the scope of CSR behavior. That is, according to this principle, CSR behavior occurs only when the firm is responding to problems generated by the organization's primary activities. This precludes public responsibility as a justification of many CSR behaviors that are hardly linkable to problems with firm's main functions. Wood (1991) would allow a weak relationship between social involvement and a firm's primary function. An example would be an automaker engaging in an adult literacy program because people's ability to read is necessary for productive work in a factory or to consume its products. The fragility of the connection is its impossibility of determining how weak it can really be (after all, any action can affect anyone, to some extent). Also, it falls short of indicating who will accrue the benefits of the socially responsible behavior (i.e., which automaker would benefit from a single automaker's action to reduce illiteracy?).

In Wood's model (1991), the only other possible reason for a firm to engage in CSR behavior is the discretion of the manager. Her model, therefore, opposes Friedman's (1970) call that the responsibility of managers is a fiduciary one, to serve as an agent of the stockholders. The problem with managerial discretion is that even if one argues that in reality managers do have some room for discretionary action, there is nothing inherent in the model that binds managers' competence to social involvement. Therefore, managerial discretion is probably marginal and is not sufficient to explain observed social involvement.

Conclusions on the Corporate Socially Responsible Behavior Models

Table 1 summarizes the models covered above. The evolution of thought in modeling corporate social performance seems particularly important in that it has gradually clarified the association of corporate behaviors with social demands, by recognizing that different levels of analysis were needed (Wood 1991). The "processes" undertaken to more adequately respond to social pressures have been specified and, more importantly, the need to separate society-business legitimacy from the micro level in which firms act have been voiced. The two ethical premises that reflect objectives and values of society, social contract and a firm's moral agency, are not adequate explanations for CSR behavior at the firm level. Nonetheless, observed variance in the behavior of organizations, not explainable by cost reduction or niche targeting, is not adequately accounted for by the other proposed ethical principles: the concept of public responsibility is too narrow in scope and managerial discretion has only marginal ability to justify social involvement. Moreover, the corporate social performance models are basically concerned with avoiding negative consequences of angering social agents. Even the proactive response mode in Carroll's (1979) and Wartick and Cochran's (1985) models is regarded as an anticipation to eventual problems with society. It corresponds to facing and solving problems as opposed to withdrawing from them (Davis and Blomstrom 1975) and to leading the industry, as opposed to fighting demands (McAdam 1973). Yet, the baseline of these models is that engaging in CSR behavior helps to prevent society from applying potentially harmful sanctions to the firm.

This suggests that there are important factors missing in explaining why corporations become socially involved. The origin of this problem resides in the deliberate separation between social-issues management and strategic-issues management, to which Wartick and Cochran (1985) referred. If social demands can be looked at as part of an approach to build strategic competitive advantage, then a justification for engaging in CSR behavior is granted. The stakeholder framework, reviewed next, is a good tool for such an approach to address the strategic dimension.

Table 1: Summary of Models of Corporate Socially Responsible Behavior

Model	Antecedents	Consequents	Achievements	Limitations
Ackerman and Bauer's Corporate Social Responsiveness (1976)	- need to obtain social legitimacy	- strategic performance through corporate social responsiveness	- shifts the focus from social obligation to the social response process - brings into consideration the firm's strategic posture (strategy), isolating the moral aspect	- no orientation on which social demands should be responded to - being merely responsive does not grant legitimacy - maintains the assumption that business has an inherent social responsibility
Carroll's Corporate Social Performance (1979)	- categories of social responsibility (economic, legal, ethical, discretionary) - social issues (demands) - philosophy of responsiveness	- socially responsible performance	- views as separate issues affecting CSP what was previously regarded as three different definitions of social responsibility	- accepts all, but does not distinguish among economic, legal, ethical and discretionary motivations - ethical and discretionary categories are not easily accessible and may be regarded as the eventual explanation - three dimensions are not in the same space (cannot be combined)
Wartick and Cochran's Corporate Social Performance (1985)	- social contract of business and business as a moral agent directing principles of social responsibility - capacity to respond and managerial approaches directing mode or strategy of response	- socially responsible policies - minimizing "surprises"	- recognizes that the three aspects in Carroll's model are in fact in different spaces and can be integrated as principles, processes and policies of CSP	- does not solve the issue of balancing economic and noneconomic responsibilities - regards society as a whole as the ultimate driver of CSP, therefore solving the problem of business in general, but not of the firm
Wood's Corporate Social Performance (1991)	- corporate social responsibility (for businesses in general) - public responsibility, in terms of primary involvement (economic task) and secondary involvement (remedy problems generated by primary involvement) - managerial discretion	- outcomes of social responsibility, including policies, programs and behaviors	- separates the level of business and the level of the firm	- insufficiency of the principle of public responsibility to explain observed SRB - has to rely on the altruistic discretion of the manager to explain SRB

The Stakeholder Framework

Reviewing the stakeholder framework is important because in order to understand the role of consumers in motivating corporate socially responsible behaviors.

Since they rely ultimately on some ethical explanation, the corporate social performance models above are inherently normative models. They end up prescribing what corporations should do and why they should engage in socially responsible behavior. The stakeholder framework focuses more on why firms actually engage in this kind of behavior. The review of the stakeholder framework that follows is relevant to this research for three reasons. First, it essentially regards socially responsible behaviors as strategic considerations. Second, it addresses the issue of the ability of society as a whole in pressuring for its demands. Third, the stakeholder framework makes it possible to look into the question of the relative power of consumers among other stakeholders in their influence on the firm's behavior. These three issues are detailed next, followed by conclusions on the topic.

Stakeholders and Strategy

The term stakeholder was first used by Ansoff (1965) in describing groups (managers, workers, stockholders, suppliers, and vendors) whose conflicting claims have to be balanced by the organization. A more comprehensive approach was introduced by Freeman (1983, 1984). He defined stakeholders as "all of those groups and individuals that affect, or are affected by, the accomplishment of organizational purpose" (Freeman

1984, p. 25). This definition deviates from previous ones by including a larger number of groups and bringing in the notion of dependence. This notion comes from Pfeffer and Salancik's (1978) resource-dependency theory, which posits that an organization, to be effective and endure, has to satisfy the demands of those who control resources it depends on. The firm depends on any group of people—stakeholders—to the extent they can control resources it needs and, hence, affect its direction. Therefore, stakeholders have to be considered in the strategic management process (Freeman 1984). Any groups affected by the organization are also stakeholders in the sense that they may affect the firm in the future (Freeman 1984). To Freeman (1983), the stakeholders of the firm include stockholders, employees, creditors, suppliers, customers, public interest groups (such as, environmental advocates), government, and society. The power and stake of each of these groups depends on their capacity to affect the strategic objectives of the firm (Freeman 1983).

When conceived, one explicit objective of the stakeholder concept was to integrate the issue of CSR "around the concept of strategy, that is, around the issues of how organizations can configure themselves and take actions to align themselves with the external environment" (Freeman 1984, p. 44).[3] Freeman's concern derived from a recognition that mutually impacting social and economic issues had been treated separately by the CSR literature. Moreover, the stakeholder framework drives the explanations for CSR behavior away from the corporate ethics view, common to the corporate social performance models. It does it through the resource-dependency idea, which places the source of the stakeholders' power in the resources they control. To the extent that these are needed by the organization and may affect its profits, stakeholders' demands have to be considered. Such demands concern social issues, but the firm itself is profit, not ethics, oriented.

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[3] The other areas Freeman (1984) intended to integrate with organizational strategy in the stakeholder framework were systems theory and organization theory.

A broad research tradition of CSR was developed based on stakeholder management. Such literature[4]—mostly in the areas of management, finance and economics—deals with many stakeholder groups, but one, the consumer, is conspicuously absent. For example, there has been research exploring CSR and employees, regulatory agents (McGuire, Sundgreen and Schneeweis 1988), institutional owners (Graves and Waddock 1994), international corporate political action (e.g., boycotting former South African apartheid), corporate philanthropy, community relations, responses to activist pressures, ethical investing, and business-government relations, among others. The consumer as a stakeholder seems to have been omitted from the studies of CSR. One exception are studies specifically concerning green marketing. However, even in these studies, a great deal of attention is placed either on the environmental demands of society as a whole, or on the demands of specific segments of highly environmentally concerned consumers.[5] Studying consumers as stakeholders with social demands for the purposes of strategy assessment is an area that only recently started receiving attention (e.g., Brown and Dacin 1997).

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[4] For an extensive list of articles, refer to Wood 1991, p. 704-705.

[5] One exception being the area of public policy towards the consumer. But in this case the focus is on regulation, not on strategic issues.

Society as a Stakeholder

The relevant question here is whether society as a whole is a legitimate stakeholder of the firm. Freeman (1983) listed society among other possible stakeholders. Moreover, he suggested that it is important for the organization to accommodate society's demands into its strategy, by creating an upper strategic level denominated "enterprise strategy" (Freeman 1983, 1984). This level of strategy is intended to state "what the firm stands for," and is founded on "combining an understanding of the stakeholders in the organization, the values of the organization and an account of the social issues which can affect the firm now and in the future" (Freeman 1984, p. 101). While Freeman's purpose was to bring society closer to the firm, he has done it in fact by assessing specific stakeholders with social issues—not society. The problem is that stakeholders' demands that are also social issues are not the same as the demands of society. This is clear, for instance, in the case of several human resource issues, such as retirement, lay-offs, stress in the workplace, work safety, and women and minorities in the workforce (Clarkson 1988). Even though society as a whole cares for many of these issues, the firm will perceive them only to the extent that these stakeholders have the power to affect the firm's objectives.

Besides acting through specific stakeholder, the other way society impacts a firm's behavior towards social responsibility is through legislation and regulation, which makes it important for the firm to treat the government as a stakeholder. However, government is an entity in society, not society itself.

Critique about the inclusion of society as a separate stakeholder is consistent with the empirical findings from a 10-year research program on CSR behavior by Clarkson (1995). He found that firms do not behave in a socially responsible manner in response to society. Companies "do not think or act in terms of concepts of corporate social responsibilities or responsiveness, nor of social issues and performance" (Clarkson 1995, p. 98), but solely in terms of relations with each particular stakeholder group. As he points out,

> it is necessary to distinguish between stakeholder issues and social issues because corporations and their managers manage relationships with their stakeholders and not with society. (Clarkson 1995, p. 100)

Clarkson's finding indicates that a firm would not undergo expenditures linked to issues that are social by virtue of representing a demand of society, but only in response to socially relevant demands of specific stakeholder groups.

Clarkson (1995) modeled corporate social performance based on the stakeholder approach but made a clear distinction between stakeholder groups and society. He divided issues into two classes: problems that are solved by legislation and regulation and problems that are related to specific stakeholder groups.

Clarkson made an important contribution by recognizing that the organizations' data he gathered throughout the years on corporate social responsibility refers only to firms responding to specific stakeholder demands, thus showing the adequacy of the stakeholder concept. He is correct in distinguishing between the society-business and organization-stakeholder levels of analysis. However, he based the distinction between a stakeholder and a social issue on "the presence or absence of legislation or regulation"

(Clarkson 1995, p. 103). His assumption, that issues can be either stakeholder issues or social issues regulated by legislation, seems too strong and does not find support in reality. It is correct that society can act by regulation, but not all social issues are translated into regulation. First, because it may take time to transform a social demand into legislation. Second, because society may have means other than legislation to approach an issue.

In Clarkson's model, the firm will engage in some action only if pressed by law or by a group that is important to the firm. This view cannot explain cases where neither of these two things occur. For example, charity, community work, education or sports sponsorships, and some environmentally protective actions, among others. These are nonregulated issues (represent no legal obligation to firms) and are not anchored on any specific stakeholder power of affecting the firm either. Still, firms keep supporting them. An argument of this research is that firms engage in these activities in order to enhance the demand for their products or services. This point will be elaborated later.

The Relative Power of the Stakeholders

Freeman's (1984) stakeholder framework recognizes that the relative power of each stakeholder dictates the amount of attention and effort a firm will invest in responding to each stakeholder's demand. Fundamentally, the stakeholder approach states that the existence of a legitimate claim on the firm is the limiting determinant of whether a stakeholder's demands will be considered by the firm (Freeman 1984). More recently, Hill and Jones (1992) recognized that what legitimates the claim of a group and qualifies it as a stakeholder is the existence of an exchange relationship. As any exchange must be two-sided, it follows that the firm will only be willing to regard the claim of a group if this group has something to give back to the firm. Such retribution must be in the firm's interest, i.e., it must constitute some kind of resource the firm depends on. This forcefully limits the ability of certain groups in pressuring the firm to meet their claims. The lack of readily identifiable resources to offer to the firm by many stakeholder groups (such as charity institutions, environment concerned groups) reduces the stakeholder approach's capacity to explain many instances of social involvement.

This discussion highlights one problem with the approach proposed by Freeman (1983). The framework falls short of examining in detail how a group can harm the firm in a competitive marketplace. It does not go beyond an inside analysis of the organization, to consider how the need of a firm to be competitive differentiates among diverse stakeholders' power. Some stakeholders can directly threaten the firm's performance. Employees, for instance, can strike or lower their effort and, thus, productivity. The ability of other groups to affect the firm is less direct. For example, environmental groups can do little but seek regulation or influence consumers. The same is true for all stakeholders besides those constituting what Freeman (1984, p. 6) calls the traditional "managerial view" of the firm (owners, suppliers, employees, and customers), or those which, in a more flexible definition, Clarkson (1995) calls "primary stakeholders" (i.e., those whose support is essential for the organization's survival). The ability of the remaining stakeholders to influence the firm's capacity to achieve its objectives cannot not denied. However, it is clear that the only way "secondary" stakeholders affect the competitive profile of a firm is restricted to influencing primary stakeholders.

Freeman (1984) conceptualizes power as “the ability to use the resources to make an event actually happen” (p. 61). Demands of socially responsible behavior by organizations have to be backed up by economic power, if long term survival among competition is sought. Specifically, by the ability that the stakeholder has to affect the economic performance of the firm, relative to its competitors or to the market. Consequently, if the stakeholder group does not have such power, it will have to rely on influencing other stakeholders who do, in order to have its demands considered by the firm.

This market effect can be exemplified by the following. Suppose a funding institution requires the adoption of a certain environmentally protective measure in order to lend money at an interest rate of, say, X%. Without the adoption of the protective measure, money can be borrowed elsewhere at some (X + Y)% rate. The borrowing firm will be willing to satisfy the demand for environmental protection up to the point at which the environmentally protective investment offsets the additional cost of borrowing money. A similar argument can be made in relation to an employees’ demand for improved workplace conditions. The stakeholder framework is helpful to recognize that these claims have to be considered and weighted, but the power of the particular stakeholder has a clear limit imposed by market forces.

The use of the stakeholder framework to explain social involvement presents difficulties when such a market limit seems to have been surpassed. Exemplar cases abound. Ben & Jerry's ice cream buys blueberries from Native American tribes (Carlin 1995), incurring an additional cost that certainly exceeds any benefit it can obtain from minority groups, whether in terms of consumption or of any other kind of support. Walmart stores places orders with American job-creating suppliers at the risk of, at least in principle, becoming less competitive in the market. Target stores offers scholarships to average performing students who are committed to their communities. McDonald's provides accommodations for families with sick children under away-from-home treatment, apparently not in response to the demands of any specific stakeholder group. If the demands of society as a whole are not a convincing argument for such behaviors, socially involved firms in competitive markets must represent value to some primary stakeholder.

The bottom line is that some stakeholder has to pay for actions of social involvement, but such actions cannot be easily linked to any stakeholder group willing to pay for it. In a competitive environment, the organization will be able to succeed only if its measures towards social demands result either in cost gains or in added value for the consumer (Porter 1980). Unless another primary stakeholder is willing to trade-off its power and its stakes for a firm's social involvement, some value has to be perceived by the consumer. For example, a fund provider may require a borrowing firm to adopt socially responsible action but will accept a lower interest rate than the market. Otherwise, the extra burden imposed on the firm will necessarily reduce the firm's competitiveness, except when the firm's customers also perceive it as added value, allowing for a price increase. When consumers do not perceive such a value, they will regard the social involvement as an unnecessary additional component of the price they are paying for the product. This may induce the stakeholder consumer to withdraw support for the firm, with negative consequences for the firm's survival.

Conclusions on the Stakeholder Framework

The stakeholder framework makes an important contribution to understanding why organizations engage in socially responsible behavior by considering the strategic viewpoint. This framework goes beyond being a simple process of stakeholder management, as in Wood's (1991) corporate social performance model. It provides a reason for firms to be socially responsible, by prescribing that it is in the best interest of the firm to satisfy the demands of stakeholders. This is because the firm depends on stakeholders to fulfill its objectives.

One difficulty with the use of the framework in analyzing social involvement has been the lack of a more precise understanding of the role of society as a stakeholder. Similarly to the corporate social performance models discussed above, viewing society as a stakeholder lacks strategic implications. Society's demands would affect firms' strategies only if they had different impacts across firms. That is, the influence of society on the firm has to take into account the appropriate level of analysis. This problem resulted in the empirical difficulties encountered by Clarkson (1995), but Clarkson's alternative model—correct in restricting the firm's response to the demands of specific stakeholders—fails to remedy the situation by making too strong an assumption. Namely, that social issues are necessarily translated into legislation. There are social issues, not enforceably regulated by society, which receive consideration and are the subject of expenditures by organizations. The question of why these firms choose to incur such costs remains unanswered.

Another issue about the stakeholder framework is the relative power of the stakeholders. Stakeholder power arises because the firm depends on some resource controlled by the stakeholder. But stakeholders also compete in a market and must be willing to "pay a price" for demanding social involvement, be it in terms of direct pay or of foregone opportunities. The competition the firm faces sets limits for the firm's ability to cope with all stakeholders' demands. Hence, affects the relative power of a stakeholder. Some stakeholder will end up paying for any social involvement. The difficulty of associating many actions of social involvement to specific stakeholders capable of assuming their costs raises the need of transferring such costs to the products' prices. What differentiates consumers from other stakeholders is the fact that consumers are most often the ones who ultimately pay the bill for social involvement, except when other stakeholders assume part of the bill (e.g., employees trading higher wages for, say, better workplace environment, or funding groups accepting lower returns). This suggests that the explanation of why firms incur costs of social involvement often rests with the value such involvement has for consumers.

Summary of the Motivations for Firms to Engage in Corporate Social Responsibility

The arguments on corporate social responsibility developed above can be summarized by the following points. First, society can impose its demands to business on a macro-level. At this level, socially responsible behavior is not imposed by society on specific firms, but only on business in general, or at least on an industry-level. Eventually, this imposition takes the form of regulation, but not for all the issues reflecting social concerns. Second, following Wood's (1991) public responsibility, organizations have the obligation of solving social problems that they may have caused in pursuing their economic function. Third, altruism can manifest in managerial discretion, although its impact is probably marginal, given the need managers have to respond to stockholders. Finally, stakeholders can impose their aspirations to the extent they control resources needed by the firm. In particular, a firm may engage in SRB to be granted access to capital, if stockholders have social demands, to obtain cost reductions, by increasing the motivation of employees sensitive to social issues, and to increase the demand for its products, if the social involvement is of value for the consumer. These are the motivations or antecedents for a firm to become socially involved. The left-hand side of Figure 1 represents these points.

The right-end side of Figure 1 shows that, by engaging in socially responsible behavior, firms can obtain legitimacy from society—at the business or industry-level—and seek competitive performance. Achieving legitimacy means that the organizations are allowed to exist. As Wood puts, the need of legitimacy "expresses a prohibition, rather than an affirmative duty" (Wood 1991, p. 695). Legitimacy refers to the institutional level and, hence, affects business in general, not a specific firm, unless it does not do what is expected of any company. Therefore, socially responsible behavior at this level is expected of every firm and does not affect a firm's competitive performance.

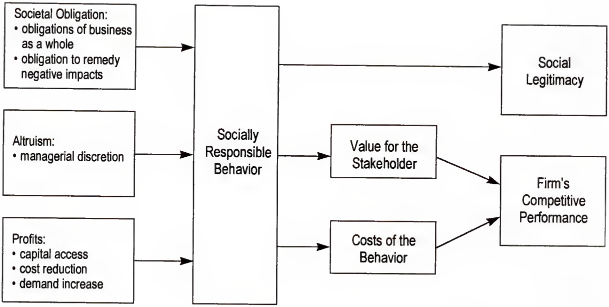
Societal Obligation:
• obligations of business as a whole
• obligation to remedy negative impacts
Altruism:
• managerial discretion
Profits:
• capital access
• cost reduction
• demand increase
Socially Responsible Behavior
Value for the Stakeholder
Costs of the Behavior
Social Legitimacy
Firm's Competitive Performance

Figure 1: Motivations and Consequents of Socially Responsible Behavior

The firm's competitive performance is affected both by costs of engaging in the behavior, and by the value that the social involvement has for specific stakeholders.

Building a consumer perspective of social involvement is necessary to investigate the effects of a firm's social involvement. There is a need to understand how social involvement provides value to consumers. The following chapter addresses this issue by drawing on literature on consumers' social needs and signaling theory.

CHAPTER 3
THE VALUE CONSUMERS ASSIGN TO SOCIAL INVOLVEMENT

The focus of this research is on the impact of social involvement on consumers. Consumers are privileged stakeholders of organizations in a competitive environment. If they withdraw patronage in benefit of a competitor, the firm perishes. Any action of social involvement has to be paid for by consumers, unless it returns utility to investors, employees or other stakeholders who can affect capital accessibility or cost. Therefore, except for these cases, socially responsible actions have to be translated into some value to consumers. If society transfers its concerns to consumers, they will be willing to pay for the social involvement. In other words, the question is whether or not consumers can perceive social value in the products or services they purchase. If they do, a firm's social involvement may have a direct effect on consumer behavior. This direct effect—in which social involvement is a source of utility for consumers—can be better understood through the literature on the social values consumers place on products and services, reviewed next. An indirect effect, by which social involvement affects other sources of utility may be predicted using signaling theory, which is reviewed next in this chapter. The chapter ends with a summary of the values consumers may assign to social involvement, according to the perspective raised by the discussion on the models of corporate socially responsible behavior and the stakeholder framework.

The Social Value Consumers Place on Products and Services

Consumers are members of society. When consumers look for and purchase goods that satisfy their needs, they take into consideration their social needs in addition to functional needs. In turn, social needs or motives reflect society's norms and values. For example, in choosing the make of a car, consumers do consider product reliability, safety, initial and usage costs, comfort, etc., but they also ponder society's perception of their purchase. Similarly, consumers' patronage of a store reflects not only the convenience of its product assortment, a particular location, ease of parking, etc., but also how society regards the patron for his or her choice. Working in the context of brand attitude, Mittal (1990) termed these two kinds of purchasing motives as *utilitarian* and *image* motives. A more appropriate terminology may be *functional* and *symbolic* motives. First, because the image or symbol provided by a product or service can be regarded as a source of utility. Second, because image is often employed in marketing as a construct that incorporates evaluations of functional aspects.[1] Here the idea of image or symbolic motives relates "to one's need to manage favorably one's social and psychological environment" (Mittal 1990, p. 209). Society imposes its norms on consumers. In turn, consumers seek products or services carrying benefits that represent "cultural symbols associated with the possession or consumption of an object" (Mittal 1990, p. 210).

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[1] It can be argued that "symbolic" benefits are also "functional", as they "function" helping the consumer manage his/her social and psychological environment. However, for a lack of a better term, I use "functional" intending to refer to benefits deriving from attributes found in a product or service *per se*, as opposed to benefits which depend on an association with aspects extraneous to the product or service.

Culture is the way society expresses its beliefs and values, and its impact on product choice has been studied and is well established in marketing (e.g., Hirschman 1980, Solomon 1983). In particular, McCracken (1986) proposed a model articulating how society shapes consumer goods to reflect its principles. Similarly, culture can shape the value of specific brands competing in markets. For instance, if "jeans" represent a particular category of goods that denote, say, rebelliousness, a specific brand can reflect these values, probably with more success.

Recent research in marketing has been concerned with consumers' perceptions of the value of alternatives offered in the marketplace. There seems to be agreement that the traditional view of value as 'quality for the price' does not encompass all the value a product may offer (e.g., Holbrook 1994, Richins 1994). In particular, the study by Richins (1994) found empirical evidence that a possession's value also accrues from its meaning to the consumer, either as an indicator of social relationships or as a reflection of personal identity. She referred to the former as the public meaning and the latter as the private meaning of goods. Her studies supported the idea that consumers see value as deriving from public meanings, "the subjective meanings assigned to an object by outside observers (nonowners) of the object, that is, by members of society at large" (Richins 1994, p. 505-506).

Another consumer behavior study that supports the idea that consumers seek social value in what they purchase was made by Kleine, Kleine and Kernan (1993). They argue that consumers purchase products or services for social reasons, as their market behavior is influenced by others. Their view is that consumers consume to build social identities, multifaceted labels by which they are recognized by members of society (Kleine, Kleine and Kernan 1993). Consequently, products (and services) are instruments that permit consumers to exert their social identities.

The psychological study of motivation has also recognized the influence of society on the behavior of individuals. Feather (1990) studied the importance of individual values, including those acquired from society, in the choices and decisions that people make. His research found significant evidence that individuals' behavior is related not only to the expectations people have about the outcomes of the behavior, but also to the subjective value of the outcome. As he argues, "values may be seen to express both motivational concerns and societal demands" (Feather 1990, p. 157). Particularly, he sees an individual's moral and ethical principles as determined, at least in part, by an underlying social contract. Furthermore, moral judgments and associated values are viewed as depending upon a person's socialization experience. Specifically, socialization experiences define the individual's personal and social identity through culture, class membership, reference groups, gender, work environment, and mass media exposure (Feather 1990).

The literature reviewed to this point suggests that consumers are affected by the society to which they belong. Consumers may be symbolically motivated (Mittal 1990), culturally driven (Hirschman 1980, McCracken 1986), find value in the product or service's public meaning (Richins 1994), or use products or services to build social identities (Kleine, Kleine and Kernan 1993). Regardless of the approach, research suggests that society does indeed shape consumers' needs, and therefore, their expectations of the benefits or values from the products or services they choose. This view was incorporated in a comprehensive model of market choice behavior by Sheth, Newman and Gross (1991). In their model, consumers seek five different values in a product or service: functional, social, emotional, conditional, and epistemic value. They regarded these five sources of value as independently impacting choice. Among them, they defined the social value of a product or service as “the perceived utility acquired by an alternative as a result of its association with one or more specific social groups, … through association with positively or negatively stereotyped demographic, social-economic, and cultural-ethnic groups” (Sheth, Newman and Gross 1990, p. 19). Thus, it is reasonable to think of socially related needs arising in consumers from the influence of particular groups or of society. Hence, it can be assumed that consumers make choices considering the utility from satisfying their social needs as well as from the functional purpose of products and services. Given that social involvement identifies the company or its products or services with a concern for social issues, it may aggregate perceived utility on these products or services.

The model presented by Sheth, Newman and Gross (1991) has the benefit of summarizing in a single construct—social value—the contributions of a large body of literature. Moreover, it associates the presence of social value with the choice of products and brands and recognizes that social value may influence choice by incrementally adding to functional and other values. Further, the model relies on the presupposition that the values are independent. This means that the way consumers perceive one value is not affected by the way they perceive another. The next section presents a mechanism that explores the possibility that a firm's social involvement not only adds social value to products and services but also affects the perception of functional values.

Signaling Theory and Social Involvement

When consumers are faced with the task of choosing a product or service, several possible sources of value in the alternatives may be considered. If consumers were able to gather perfect information about each source of value, no problem would exist. However, consumers do not always obtain perfect information. In particular, information on the functional value of products and services implies uncertainty for consumers. Furthermore, unlike emotional, social, conditional and epistemic values, functional values reside entirely in what is being offered to the market by the firm, not in the consumer's affective state (emotional value) or association with social groups (social), nor in special circumstances (epistemic and conditional). This creates an information asymmetry between what consumers and firms know about the functional value of the product or service. The latter is much more likely to know more about the product or service quality and performance. The problem of information asymmetry has been studied by information economists (e.g., Grossman and Hart 1983, Holmström 1979, Milgrom 1981, Sappington 1983).

Information Asymmetry and the Need for Signals

Asymmetry of information about the functional performance or quality of a product or service creates the possibility of opportunistic behavior by the party possessing more information. This happens when firms misrepresent the quality of a product or service (Hill and Jones 1992).

Competing firms try to communicate to consumers that their products or services have the desired level of quality. However, such a communication is qualified by its trustworthiness. Hence, the need for signals to convey information on trustworthiness. Trustworthiness or credibility does not necessarily refer to a reputation for high quality, but to "the willingness of a firm to deliver what it has promised" (Erdem 1995, p. 10).

Several marketing mix elements have been regarded as signals of product quality or truthful delivery of pledged claims, such as price (Bagwell and Riordan 1991, Tirole 1988), warranties (Padmanabhan and Rao 1993), uninformative advertising (Nelson 1974), product-family branding (Wernerfelt 1988), brand equity (Erdem and Swait 1998), retailer reputation (Chu and Chu 1994), and customer service (Simester 1995). In general, with the exception of the first two, all these signals base their credibility on inferences consumers make on the amount of sunk costs previously made by the firm.[2] For instance, advertising conveys signals of the firm's commitment to a product, and thus, of quality, regardless of content (Nelson 1974). By the same token, brands represent credible signals not because of being informative, but fundamentally because of the fact that they "embody the story of a product, represent all the firm's investments in them and reflect their reputation" (Erdem, Swait and Louviere 1994, p. 5). Similarly, good customer service reveals to customers that the firm has sufficient resources to back up customer expectations about the quality of the product or service (Simester 1995). On the other hand, high quality can be signaled by high price, either by means of inferred high costs or of inferred high demand (Tirole 1988). However, high prices may lack credibility as signals, given that opportunistic firms can use high price to signal nonexistent quality (Bagwell and Riordan 1991, Erdem, Swait and Louviere 1994). Finally, warranties represent contractual mechanisms that signal consumers that the firm is committed to a designated level of quality (Hill and Jones 1992). However, warranties have moral hazard problems (opportunistic consumers may affect the probability of warranty redemption by spending less on the good's maintenance) and adverse selection problems (consumers are heterogeneous in their efforts to provide product maintenance and, therefore, the firm incurs losses if fully insuring less careful consumers, Padmanabhan and Rao 1993). Consequently, warranties have a higher cost than the value they possess, at least for careful consumers. Furthermore, the consumer's cost to enforce a warranty contract may reduce its credibility, hence encouraging opportunistic behavior by firms offering less than effective warranties.

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[2] Sunk costs represent investments that cannot be recouped. They will normally produce benefits over time.

Social Involvement as Signals of Shared Values and Source of Trust

Social involvement can be regarded as a signal of shared values. When a firm engages in SRB, it is saying to consumers that it shares the same values they have as members of society, therefore, sending them a message that it is trustworthy and its claims are dependable. The notion that shared values are antecedents to trust has been addressed in the marketing literature (Dwyer, Schurr and Oh 1987, Heide and John 1992, Morgan and Hunt 1994). Understanding social involvement as a signal of shared values and, therefore, of trust points out another way in which a firm's social involvement affect the total consumer utility.

Firms need to convey to consumers signals that they are worthy of trust in their claims that the product or service fulfills consumers' expectations. In a situation of asymmetric information, consumers want to receive signals from the parties with privileged information—the firms—that they can be trusted in their claims (explicit or implicit) about the functional performance of their products or services. One source of trust can be the shared values that the social involvement communicates.

The concept of trust can have different meanings, ranging from the idea of reputation to confidence. Schurr and Ozanne (1985) adopt the definition of trust as "the belief that a party's word or promise is reliable and a party will fulfill his/her obligations in an exchange situation" (Schurr and Ozanne 1985, p. 940). This paper subscribes to this idea that trust relates to believing in the word given by another party.

Believing in another party's promises is greatly facilitated if there is a sense of affinity with that party. This idea appears in the relationship literature. For instance, Dwyer, Schurr and Oh (1987) separated relational exchanges from discrete transactions. The latter are one-shot transactions and therefore, by definition, cannot carry any kind of perceived risk on the part of the consumer. The mere possibility that a product or service will not integrally fulfill the consumer's expectations adds a time dimension to the transaction and transforms it into a relational exchange. These authors model relational exchange as an interpersonal phenomenon, commenting that "expectations of trustworthiness may be cued by personal characteristics" (Dwyer, Schurr and Oh 1987, p. 12). They imply further that to be trustworthy a relationship requires that the parties "derive complex, personal, noneconomic satisfactions and engage in social exchange" (Dwyer, Schurr and Oh 1987, p. 12).

The ideas presented by Dwyer, Schurr and Oh (1987) were developed in the context of an industrial setting, involving sellers and buyers. It is less intuitive to think of consumers as having a "personal" link with an organization which supplies him/her with products or services. However, even the more impersonal relation between a firm and its consumers will benefit if the distance and the lack of personification can be reduced. Only the advent of the modern organization led to less personal exchanges. In ancient times, when trade transactions were made among persons, trust was a very personal concept. Then, trust was a function of a sense of personal affinity between the parties, and this mutual affinity meant having a common set of beliefs or values. Therefore, if trust is desirable, the organization needs to create a link of affinity with the consumer. One way the organization has to create affinity is by showing that it shares the same values and beliefs as the consumer. To the extent that the consumer has social values, undergoing social involvement communicates that the firm has the same values and beliefs as the consumer.

Morgan and Hunt (1994) presented a model of marketing relationships that reinforces the idea that shared values enhance trust. Their model is partly based on the organizational literature. For instance, Enz (1988) defined organizational values as beliefs regarding means and ends that an organization should follow in determining and pursuing its objectives. She acknowledged the importance of value-sharing between departments and top management to create trust and, therefore, increase departmental power in the organization.

Morgan and Hunt (1994) have found empirical evidence that shared values contribute to increase trust in industrial exchanges. They view shared values as "the extent to which partners have beliefs in common about what behaviors, goals, and policies are important or unimportant, appropriate or inappropriate, right or wrong" (Morgan and Hunt 1994, p. 25). Researching inter-organization exchanges, they have found that shared values significantly contribute to the development of trust. The idea in this work is that shared values are a source of trust between different levels of an organization (Enz 1988) or in an inter-firm setting (Morgan and Hunt 1994) can be generalized to an organization-consumer context.

Social Involvement and Functional Attributes' Credence Levels

The way social involvement may affect consumers' perceptions on the functional attributes is specific. When firms become socially involved, they are signaling that they share values with consumers. Hence, they can be trusted in what they say they stand for. Therefore, unlike signals provided by the above mentioned advertising, family-branding, brand equity, retailer reputation and customer service, trust does not arise from inference nor, unlike in the case of price and warranty as signals, from the quality of the signal itself. The signal of shared values itself is one of trustworthiness.

There is empirical support for the idea that trust reduces uncertainty. For instance, Achrol and Stern (1988), studying decision-making in marketing channels, found that uncertainty could be reduced by increasing trust among channel members. For Morgan and Hunt, "trust decreases a partner's decision-making uncertainty because the trusting partner has confidence that the trustworthy party can be relied on" (Morgan and Hunt 1994, p. 26). They also found empirical support for trust reducing uncertainty in testing their model of relationship marketing. Although both studies found support for trust as a reducer of uncertainty, it has to be recognized that in both the construct for uncertainty captured not only the lack of available information, but also the degree of confidence of the decision maker. Here, uncertainty refers specifically to incomplete information.

Social involvement as a signal of trustworthiness plays a role similar to that of brand equity as a risk reducer. In a reasoning similar to that developed by Erdem and Swait (1998) for brand equity, social involvement can be viewed as a mechanism by which firms reduce the perceived risk associated with the purchase of a product. Risk reduction in turn translates to value for consumers. Social involvement does not convey information as brands do, but does serve to enhance the credibility of a product's claims, including its brand's. Therefore, it reduces the consumer uncertainty that originates from asymmetry in information. By reducing uncertainty, the signal increases the consumer's expected utility of the product or service (Erdem and Swait 1998).

Furthermore, if reduced uncertainty creates utility, the less observable the functional attribute of a product or service is, the more important the risk reducing signal will be. This implies that social involvement—as brands—increases its value as a signal as one goes from a *search* attribute (accessible before purchase), to an *experience* attribute (learned from using or experiencing), to a *credence* attribute (rarely learned) (Erdem, Swait and Louviere 1994). In fact, comparing the brand equity of fast food restaurants and athletic shoes, Erdem, Swait and Louviere (1994) found that the latter have higher brand equity and attributed this to being an indication that the value of the signal of trustworthiness is lower for nondurable than for durable products.

Erdem, Swait and Louviere (1994) argue that imperfect observability of attributes affects the value of credible signals. However, the argument should be made with some caveats. That is, consumer's perceived risk relates only to the uncertainty and, hence, to the probability that the product or service will perform according to expectations. However, what is at stake is the total negative effect of the consumption act, which includes not only the probability of negative consequences, but also the extent of such consequences. As a consequence, it can be expected that even products frequently experienced may strongly benefit from signals of trustworthiness from social involvement (as they would from signals of quality in brand equity). For example, food can be easily experienced, but some of its attributes can be difficult to observe (such as long-term health consequences of its consumption). Given that the stakes involved are very high (health), trust may assume a very important role for this kind of attribute. Therefore, social involvement may affect behavior towards apparent search products or services that have some important credence attribute.

Summary of the Values Consumers Assign to Social Involvement

CSR has received the attention of the academic community for the last three decades but is still under debate (e.g., Donaldson and Preston 1995a and 1995b, Jacobs and Getz 1995, Sethi 1995, Swanson 1995) and presents mixed results (e.g., Aupperle, Carroll and Hatfield 1985, Clarkson 1995, Cottrill 1990, Herremans, Akathaporn and McInnes 1993, McGuire, Sundgreen and Schneeweis 1988, Murray and Montanari 1986, Roberts 1992, Swanson 1995, Ullmann, 1985). This research broadens the concept to include any kind social involvement, by explicitly including behaviors associated with the organization's products or services, not only the ones linked exclusively with the corporation. More importantly, it leaves social involvement as a construct defined according to the individual's perception, not as one internally defined by the organization. This switch provides an opportunity for better evaluating the consumers' perspective on the issue. With this, an economic motivation for firms becoming socially involved can be assessed, grounded in their effects on demand.

The review of the models of corporate social performance and of the stakeholder framework points to the need for a separation of the society-business level from the firm-stakeholders level, absent in early developments of the study of CSR. Becoming socially involved for societal obligation grants legitimacy to business. However, as a required minimum, it does not lead to competitive strategic implications. On the other hand, social involvement can affect the firm's competitive performance, to the extent that it represents value for specific stakeholder groups in control of resources on which the firm depends. The economic consequences can be on the supply side, if they impact capital accessibility (e.g., stockholders sensitive to social involvement) or cost (e.g., higher motivation and lower turn-over of employees sensitive to social involvement). They can also be on the demand side, if social involvement is of value to consumers.

This chapter focuses on the processes by which CSR—or social involvement, in general—provide value for consumers. It presents two mechanisms by which social involvement can affect consumer behavior. First, social value may represent consumer utility, adding to functional utility. A large body of research in consumer behavior (e.g., Feather 1990, Hirschman 1980, Holbrook 1994, Kleine, Kleine and Kernan 1993, Mittal 1990, Richins 1994) has studied the symbolic value that the purchase and use of products and services confer on consumers. Social value emerges from consumers' immersion in a culture and a society that affects their needs and behavior (Kotler 1989). Sheth, Newman and Gross (1991) presented a comprehensive model of choice behavior in which social value adds to functional value (as well as to other sources of value) to determine consumer choice of products, product types, and brands. All this literature supports the idea that society affects the consumption patterns of its members. However, most of the research in this area relates to referents who are closer to the consumer (e.g., family, reference groups, social classes). Therefore, more research is needed on the incorporation of the beliefs of society at large by consumers, and on how their beliefs are expressed as marketplace behavior.

The second source or mechanism by which social involvement may increase the utility of a firm's product or service is by reducing consumer's uncertainty in the firm's claims about the functional attributes of products or services. This chapter briefly reviews some bases of the signaling theory to explore the conceptual possibility that social involvement signals that the firm shares the same values as the consumer. Value-sharing enhances trust (Morgan and Hunt 1994). The effect is similar to the effect of other marketing signals previously studied, which reduce uncertainty based on information asymmetry (e.g., Chu and Chu 1994, Erdem and Swait 1998, Padmanabhan and Rao 1993, Simester 1995, Wernerfelt 1988). Reduced uncertainty due to social involvement may affect the way consumers value the functional attributes of a product or service. This is based on the uncertainty inherent in credence attributes. This opens the way for researching the cross-effects of social involvement and the functional attributes of products or services, depending on their credence level.

CHAPTER 4
A MODEL OF THE EFFECTS OF A FIRM'S SOCIAL INVOLVEMENT ON CONSUMER BEHAVIOR

This chapter introduces a model that depicts the effects of a firm's social involvement on consumer choice behavior. The model assumes that consumers try to maximize their utility when choosing a product or service. It follows that a general framework showing the formation of consumer's utility in the presence of a firm's social involvement is in order. Based on the literature reviewed above, such a framework is presented next. The model of the effects of social involvement on consumer choice, and its underlying hypotheses follow. Finally, the analytical choice model is introduced.

A Framework for Consumer Utility Formation in the Presence of a Firm's Social Involvement

A framework showing how the firm's social involvement may influence consumers' utility formation is presented in Figure 2. What it basically suggests is that the firm's social involvement affects directly and indirectly the utility of a product for a consumer. Consumer utility accrues directly from the product or service's functional attributes, its symbolic social value, and—negatively—its price. Indirect effects may result from social involvement moderating the functional attributes and price.

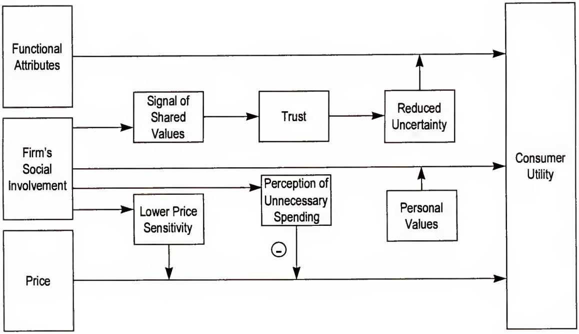

Figure 2: Consumer Utility Formation in the Presence of Firm's Social Involvement

Social involvement may directly affect the utility of a product or service for a consumer. That is, consumers may find social involvement to be a source of utility in itself. Consumers' utility reflects the value consumers ascribe to the social action *per se*. Such value arises because they feel good about buying a product or service that is contributing to society, because society has enculturated its importance in the individual, or because of the symbolic social value it has (Seth, Newman, and Gross 1991). In any case, this means that the social involvement of a firm can be regarded as an additional attribute of the firm's product or service (of course, this notion extends to actions of social involvement directly linked to the product or service's brand).

The direct effect of social involvement on utility can either be in addition to the utility from the functional value, or be of a noncompensatory nature. One way by which the latter case may happen is when consumers require a certain minimum level of social involvement by the firm in order even to consider buying a product, that is, to include the product in the consideration set.

An indirect effect happens if the utility accrued from the functional attributes of a product is moderated by the firm's social involvement. The rationale for this proposition comes from the signaling theory. It regards social involvement as a signal that the firm shares the same values as consumers. Shared values enhance trust, thus reducing the uncertainty about an attribute's performance, whenever uncertainty about the performance is present. Such an effect on the utility may be captured by changes in the taste parameters representing the sensitivity to the functional attribute.

Through distinct mechanisms, indirect effects of social involvement on utility may arise from price perception. Consumers may consider either that products or services provided by socially involved firms are worth paying more for, hence lowering their price sensitivity, or that the product or service's price incorporates unnecessary expenses on social involvement, hence considering it to be higher than it should, for the same product quality.

Consumers' personal values are posited to moderate the effects of social involvement on utility, as discussed below in more detail.

The Choice Model and Related Hypotheses

Any effect that a firm's social involvement may have on the consumer has to show up in his or her choice behavior. A model of choice behavior, which captures the proposed effects of social involvement, is presented in Figure 3.

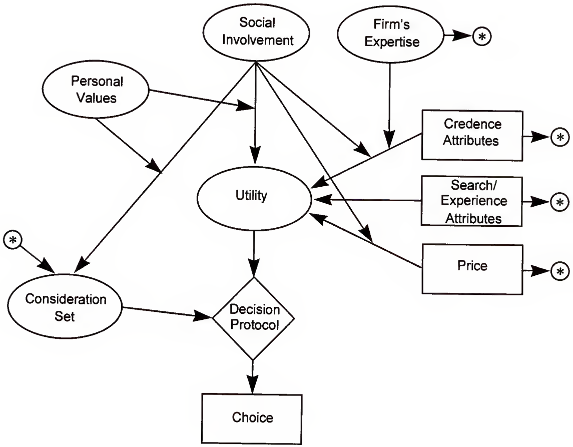

Figure 3: A Model of the Effects of Social Involvement on Consumer Choice

In the above representation, observed variables are in boxes, while unobserved or latent variables are in ellipses. Consistent with the definition employed in this dissertation, social involvement is a latent variable. That is, the level of a firm's social involvement refers to how consumers perceive it. Accordingly, a firm's expertise represents a consumer's perception of its ability to conduct its business. Personal values are also internalizations, therefore also latent. The utility and the consideration set are latent, known only to the consumer. Therefore, they cannot be observed, only inferred (through choice). In this model, the product or service's price and functional attributes, plus the choice behavior constitute the observables.[1]

Adopting a random utility choice model, the potential aspects that may (and may not) be affected by social involvement can be investigated. In this framework, the decision of an individual can be portrayed as

$$\begin{bmatrix} decision \\ protocol \end{bmatrix}_{i \in C} U_i = \alpha_i + f(X_i | \beta) + \varepsilon_i \qquad (1)$$

where U_i is the alternative i's utility for an individual,[2] within a set C of alternatives being considered by this individual, α_i is an alternative-specific constant, X_i is a vector of the alternative's attributes, β is a vector of weights reflecting the sensitivity of the individual to the attributes, and ε_i is a random error term denoting unobserved effects, measurement errors, etc. Finally, the [*decision protocol*] reflects the decision rule being adopted by the individual to make her/his choice.

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[1] Here, there is an implicit assumption that consumers perceive the attribute levels as communicated to them. This assumption is carried throughout this research for simplification purposes. A broader model considering the latent perceived attribute levels can be developed and estimated following McFadden (1986). Of course, the extra cost for doing so would include both additional estimation complexity, and the collection of data on indicators of consumers' perceived attribute levels.

[2] A subscript *n* identifying the individual is not used here for sake of simplicity. However, the reader must keep in mind that, in principle, all elements of the equation may vary across individuals.

In this model, constraints of diverse kinds (such as physical accessibility of or psychological restrictions to an alternative) shape a consideration set C for an individual. Then, the individual assesses the utility of the alternatives i which s/he considers choosing and uses some decision protocol to make a choice. In principle, the choice behavior can be affected in one or more of the three instances (decision protocol definition, choice set formation, and utility composition—see, for instance, Gopinath 1995). In order to narrow the scope of this research, the three instances are discussed below.

Decision Protocol: The decision protocol usually assumed in choice modeling is utility maximization. However, consumers may differ in the way they make their choices. Information gathering costs and other limitations, and varying processing abilities affect the way choice decisions are made. Hence, consumers may adopt rules other than utility maximization, such as dominance, satisfaction, and even random choice (Gopinath 1995). It is possible that social involvement affects the adoption of a specific decision protocol over another one. However, the selection of the decision protocol is probably more susceptible to the effects of personal constraints, such as those related to information acquisition and processing capability, than by characteristics of the alternatives, such as social involvement. Therefore, even recognizing the possible effects of social involvement on the selection of the decision protocol, this study assumes utility maximization as the decision protocol.

Consideration set: Social involvement may affect the consideration set formation. It is possible that an individual considers purchasing a product or service only if it is marketed by a firm with at least some level of social involvement. This way, the lack of social involvement may constrain a consumer's consideration set. Consumers may have thresholds below which they do not consider buying a product (e.g., Gopinath 1995, Swait and Ben-Akiva 1987). Hence,

> **H1:** The more socially involved a firm is perceived, the higher the probability that its products are included in the consumer's consideration set.

If a person places great importance on a certain social issue, it is likely that s/he is more stringent in the level of social involvement s/he adopts to select products s/he considers buying. That is, the threshold for the inclusion of a product in her/his consideration set is higher the higher her/his personal values related to social issues.

> **H2:** The increase in the probability of inclusion of a product in the consideration set due to social involvement is moderated by a consumer's personal values with respect to social issues.

Utility Composition: Social involvement can affect the consumer's utility in different ways. First, consumers may regard social involvement as a source of utility *per se*. They may value the firm's social involvement in a compensatory scheme. That is, social involvement acts as a separate attribute of the product or service, adding to the utility of its functional attributes. Support for this effect is provided by the product's symbolic and social value literature, as reviewed above. Moreover, previous research (Brown and Dacin 1997) has found that a firm's social involvement affects the products' overall evaluation.[3] Hence,

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[3] In the present research, no distinction is made between the social involvement of the firm or of its product or service. It is possible that social involvement actions directly linked to a product or service's brand—as opposed to the social involvement of the parent company, product manufacturer, or umbrella brand—show a stronger effect on the consumer's utility, but there is no reason for expecting a distinct type of effect in either case.

H3: The choice probability of a product is higher the higher the perception of the firm's social involvement.

Since social involvement is posited here to be a value in itself, the importance the consumer places in the attribute is moderated by her/his personal social values, similarly to the effect on consideration set formation. Therefore,

H4: The increase in choice probability of a product due to social involvement is moderated by consumers personal values with respect to social issues.

Alternatively, the effect of social involvement can be one of reduction of the uncertainty in the expected future performance of a product or service's functional attributes. That is, whenever some uncertainty of performance is present, the consumer may differentially assess the functional attributes' capability of performance. A firm's social involvement may reduce the uncertainty about the product's performance in an uncertain attribute by adding trustworthiness to the claims the firm makes on the performance. One way by which this can happen is by letting the consumer perceive the firm as having beliefs similar to hers/his about what is appropriate or inappropriate, right or wrong. That is, the firm shares her/his values. Value sharing has been regarded as a process of "internalization," and hypothesized to affect attitudes and behaviors (Kelman 1961). Shared values have been found to enhance trust (Morgan and Hunt 1994). By engaging in actions of social involvement, firms signal to the consumers that they have values, hence that they have goals other than making profits at any cost. The ultimate outcome of a firm's social involvement is to bolster the firm's trustworthiness. Hence, the value consumers see in a functional attribute depends on the degree of certainty they have in its future performance. According to the degree of certainty consumers have in their performance, attributes can be classified into *search* attributes (the performance is assessable before the purchase), *experience* attributes (learned from some experiencing or consumption), and *credence* attributes (rarely, if ever, learned, e.g., Erdem, Swait and Louviere 1994). The less assessable by consumers the attribute performance is, the more room there is for opportunistic behavior by firms. Therefore, more uncertainty is associated with credence than with search/experience attributes. Hence, the importance of social involvement as a signal of trustworthiness must be greater for credence than for search/experience attributes. That is, social involvement effects on the perception of the attributes via uncertainty reduction must be apparent for credence, but not for search/experience attributes. Consequently,

> **H5:** A firm's social involvement has a moderating effect on the impact of credence attributes on a product or service utility (H5a) but not on the impact of search and experience attributes (H5b).

This effect does not necessarily require congruence of values. For example, even if the consumer is not touched by, say, environmental issues, s/he may regard social involvement as a signal that the environmentally concerned firm is more likely to deliver on its promises than one that does not show signs of having social values. Therefore, due to the conflicting signaling effects, no hypothesis regarding the triple interaction among social involvement, credence attributes, and personal values is offered.

On the other hand, social involvement is not the only source of uncertainty reduction that consumers can rely on. Consumers may rely on diverse types of cues to assess the righteousness of the firm's claims on its product or service's attribute performance. In particular, consumers may rely on information about a firm's expertise in producing and delivering what it offers. Therefore, the firm's technical expertise may have an effect qualitatively similar to social involvement in the assessment of credence attributes. Consumers may learn about a firm's expertise through diverse mechanisms, such as past experience, word-of-mouth, or independent information. In any case, the way consumers perceive a firm's technical expertise can be used as a cue as to the correctness of its attributes' claims. The greater the firm's technical expertise, the more likely its claims are worth of trust. Therefore, although achieved in a different fashion, the effects of perceived technical expertise on the attribute assessment must be quite similar to the ones of social involvement. Moreover, even though technical expertise is not but one of the possible sources of information consumers may rely on to reduce uncertainty, evaluating its effects on consumer attribute assessment independently of social involvement's may provide extra support to the idea that uncertainty reduction is the underlying mechanism.

H6: A firm's expertise has a moderating effect on the impact of credence attributes on a product or service utility (H6a), but not on the impact of search and experience attributes (H6b).

Finally, consumers may regard a firm's social involvement as affecting the perception of the price level. Two opposite effects may act here. One of them points to consumers regarding social involvement as such a good characteristic that they become less sensitive to price in its presence. For one reason, they may simply think that price is not as important when a firm is socially involved. Or, following the signaling perspective above, consumers may think that highly socially involved firms are less prone to profiting at any cost, that is, of offering a product or service for a price higher than its value.

The second type of effect is probably less prevalent. It works in an unfavorable way: it points to consumers regarding social involvement as unnecessary spending. First, because social involvement may be seen as a way to satisfy the social needs of managers, stockholders or employees at the consumer's expense. Second, because consumers may think that social involvement is intended to convey false information and mislead them about the firm's values, eventually to hide unscrupulous behavior. Hence, social involvement can affect the perception of price in two competing ways, being the first one predicted to be the strongest:

H7a: Consumer's perception of social involvement reduces price sensitivity, hence decreasing the negative effect of price on product or service utility.

H7b: Perceived social involvement increases price sensitivity, hence producing a larger negative impact of price on utility composition.

The Analytical Model

One appropriate analytical tool for categorical data such as choice is the logit model. It models individual behavior and belongs to the class of models known as random utility models. The individual is assumed to always make the choice which maximizes her/his utility. However, the individual's utility is a latent, unobservable variable. The observer's observational deficiency leads to apparent inconsistencies in the observed choice behavior. These inconsistencies can be credited to nonobserved attributes, consumer heterogeneity, measurement errors, and functional specification (Manski 1977). Therefore, the observer can regard utility as a random variable. Specific assumptions about the probability distribution of the random component of the utility lead to the logit model.

From the random utility model's perspective, the probability that an individual *n* chooses an alternative *i* among a set of considered alternatives C_n is equal to the probability that the alternative's utility for this individual, U_{in}, is greater than or equal the utilities of all other alternatives *j* in the consideration set, or

$$Pr_n(\, i|C_n) = Pr_n(\, U_{in} \geq U_{jn}\,, \forall\, j \neq i;\, i,j \in C_n\,). \tag{2}$$

Assuming that the utility U_{jn} is composed of two independent components, an observable, deterministic term V_{jn},, and a random term ε_{jn}, the choice probability can be rewritten as

$$Pr_n(\, i|C_n) = Pr_n(\, V_{in} + \varepsilon_{in} \geq V_{jn} + \varepsilon_{jn},\, \forall\, j \neq i;\, i,j \in C_n\,), \tag{3}$$

or

$$Pr_n(\, i|C_n) = Pr_n(\, V_{in} - V_{jn} \geq \varepsilon_{jn} - \varepsilon_{in},\, \forall\, j \neq i;\, i,j \in C_n\,). \tag{4}$$

Expression (4) shows that the individual's choice probability of an alternative *i* depends on the differences between the observable components of the alternative's utilities, and the joint probability distribution of the random components. Assuming that the random components of the utility are independently and identically Gumbel distributed with a scale parameter μ, it can be shown[4] that

$$Pr_n(\, i|C_n) = \exp(\mu V_{in}) \Big/ \sum_{j \in C_n} \exp(\mu V_{jn})\,,\; i \in C_n\,, \tag{5}$$

which is the multinomial logit model.

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[4] For a derivation see, for instance, Ben-Akiva and Lerman 1985, pp. 105-107.

Notice that in the multinomial logit model (hereafter, MNL) the estimated probabilities are invariant under the choice of the scale parameter μ. Therefore, it can be assumed as taking any value ($\mu = 1$ is convenient) but poses an extra issue when comparing model estimations from different data sets. The scale parameter—thus, the variance—has to be assumed identical across different data sets to allow direct comparison.

Another important aspect of the MNL is that the assumption of independent and identically distributed random terms leads to the independence from irrelevant alternatives (IIA) property.[5] This is unrealistic in cases in which some of the alternatives are more similar among themselves than to other alternatives. However, this is an empirical, not a theoretical question, and can be tested.

The next assumption grants computational tractability to the MNL. The deterministic component V_{in} of the utility is assumed to have a functional form linear in the parameters. This assumption follows Lancaster's (1966) view of products as bundles of characteristics contributing to their utility. Each of the characteristics may stand for a product's attribute, attribute transformation, or interaction term. Denoting β_{nk} as each of K unknown parameters representing the consumer n's taste for the k-th characteristic of a product, and x_{ink} as the level of the k-th characteristic of the alternative i for a consumer n, the deterministic component of the alternative i for consumer n can expressed as

$$V_{in} = \beta_{n1}\, x_{in1} + \beta_{n2}\, x_{in2} + \beta_{n3}\, x_{in3} + \ldots + \beta_{nK}\, x_{inK}\,. \qquad (6)$$

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[5] The IIA property means that the relative odds any two alternatives are independent of the presence of any other alternative.

A further simplifying assumption may be that consumers share a common set of taste parameters. Expression (6) then may be rewritten as

$$V_{in} = \beta_1 x_{in1} + \beta_2 x_{in2} + \beta_3 x_{in3} + \ldots + \beta_K x_{inK} . \qquad (7)$$

Given the assumptions described above, the logit models can be used to estimate both the inclusion of the alternative in the consideration set and choice.

The inclusion of an alternative in the consideration set can be treated as a binomial variable logistically dependent on the functional attributes, price, firm's expertise, and social involvement. The probability of inclusion of a product or service in the consideration set of individual n is given by

$$Pr_n\,(i=1) = Pr_n\,(U_{1n} \geq U_{0n}) \qquad (8)$$

$$i = \begin{cases} 1, & \text{if the product/service is not excluded from being considered} \\ 0, & \text{otherwise} \end{cases}$$

$$U_{in} = \alpha + \pi P_{in} + \beta Z_{in} + \gamma E_{in} + \delta SI_{in} + \varphi(SI_{in} * PV_n) + \varepsilon_{in}\ , i = 0, 1 \qquad (9)$$

where

α is an attribute-independent constant,
P_{in} is the price of the product/service,
Z_{in} is a vector of the functional attributes of the product/service,
E_{in} is the perceived firm's expertise
SI_{in} is the social involvement of the product/service, as perceived by n,
PV_n is the level of personal values of n,
π is the price-sensitivity parameter,
β is a vector of weights for the functional attributes,
γ is the importance weight for the perceived firm's expertise,
δ is the importance weight for the perceived social involvement,
φ is the importance weight for the interaction between perceived social involvement and n's personal values, and
ε_{in} is a random term.

Hypothesis H1 predicts the significance of δ, the weight parameter for social involvement, and hypothesis H2 the significance of the parameter for the interaction term between social involvement and personal value, φ.

Choice, given the consideration set indicated by the respondent, can be modeled as an MNL. The probability that alternative *i* is chosen by consumer *n* is given by

$$Pr_n(i \mid C_n) = Pr_n(U_{in} \geq U_{jn}\,,\ \forall j \neq i;\ i, j \in C_n) \qquad (10)$$

$$\begin{aligned} U_{in} = \ & \alpha_i + \pi P_{in} + \beta^s Z^s_{in} + \beta^c Z^c_{in} + \gamma E_{in} + \delta SI_{in} + \varphi(SI_{in} * PV_n) + \kappa(SI_{in} * P_{in}) + \\ & \mu^s(SI_{in} * Z^s_{in}) + \mu^c(SI_{in} * Z^c_{in}) + \nu^s(E_{in} * Z^s_{in}) + \nu^c(E_{in} * Z^c_{in}) + \varepsilon_{in} \qquad (11) \end{aligned}$$

where

α_i is an alternative-specific constants,
P_{in} is the price of the alternative *i* for individual *n*,
Z^s_{in} is a vector of the functional search/experience attributes of *i*,
Z^c_{in} is a vector of the functional credence attributes of *i*,
E_{in} is the expertise of the firm marketing *i*, as perceived by *n*,
SI_{in} is the social involvement of the firm marketing *i*, as perceived by *n*,
PV_n is the level of personal values of individual *n*,
π is the price-sensitivity parameter,
β^s is a vector of weights for the functional search/experience attributes,
β^c is a vector of weights for the functional credence attributes,
γ is the importance weight for the perceived firm's expertise,
δ is the importance weight for the perceived firm's social involvement,
φ is the importance weight for the interaction between perceived social involvement and *n*'s personal values,
κ is the importance weight for the interaction between the perceived social involvement and the price of the alternative,
μ^s is the vector of importance weights for the interaction between the perceived social involvement and the search/experience attributes of *i*,
μ^c is the vector of importance weights for the interaction between the perceived social involvement and the credence attributes of *i*,
ν^s is the vector of importance weights for the interaction between the perceived firm's expertise and the search/experience attributes of *i*,
ν^c is the vector of importance weights for the interaction between the perceived firm's expertise and the search/experience attributes of *i*,
ε_{in} is a random term.

Hypothesis H3 posits a significant positive parameter for social involvement (δ), and hypothesis H4 predicts a significant interaction of social involvement with personal value (φ). Hypotheses H5a and H5b can be tested by comparing nested models formed by constraining to zero the parameters for the interaction terms between social involvement and the functional attributes (respectively μ^s and μ^f). Similarly, hypotheses H6a and H6b for perceived firm's expertise and the functional attributes (respectively ν^s and ν^f). By the same way, hypotheses H7a and H7b can be tested for the interaction term between social involvement and price (κ).

Summary of the Model Development

Based on the literature reviewed in the previous chapter, a framework for consumers' utility formation in the presence of social involvement was offered. A choice model was developed, and the potential choice decision making instances in which social involvement may act were discussed. Social involvement was posited to affect both consideration set formation and choice. In the following section, the hypotheses capturing potential effects of social involvement were formulated. Finally, the analytical models specific to consideration set formation and to choice were introduced. In the estimation stage, this division of the two phases in separate models yields consistent, though inefficient parameter estimates depicting effects of social involvement.

Next, Chapter 5 introduces the method used to collect the data and operationalize the model developed in this chapter.

CHAPTER 5
METHOD

This chapter describes the method employed to obtain the data needed to estimate the model described in the previous chapter. It begins by presenting the pretests, which served the purpose of selecting the research settings. Then, the main study is described in terms of the sample, the research setting, and the contrast design. The following section describes the measures of the variables of interest and manipulation checks. Finally, detailed discussion is provided on the measurement of personal values related to social issues.

Data Collection Method

The data were collected via a mail survey. The questionnaire comprised a series of conjoint stated choice tasks. The respondents faced sixteen choice scenarios in a single product or service category. In each of the scenarios they were prompted to make a choice from a set of three existing brands. Each choice task represented a scenario unique in the levels of the product or service's price and four functional attributes.

Four product and service categories were selected after the pretests. The pretests had two objectives. First, the selected categories should have brands that would not have strong *a priori* social involvement and expertise image differences. Second, they should have functional attributes distinguishable as search/experience and credence.

Within each category, the brands were picked such that three criteria were fulfilled. First, the three brands should not significantly differ in terms of their existing social involvement and expertise images. Second, they should be similarly rated by expert consumer evaluation sources, such as the magazine Consumer Reports. Finally, their market shares should not be disproportionate.

Pretests

The pretests served the purpose of selecting the categories and brands and also ensuring that the manipulations were meaningful to the respondents. Three pretests were conducted prior to the study. The first two are jointly described next. They served the purpose of selecting the product and service categories in the study. A discussion of the third pretest follows. Its objective was to check the effectiveness of the manipulations as well as assess the attribute's credence level in a choice setting.

Pretests 1 and 2: Selection of product/service categories

The objective of Pretests 1 and 2 was to select the product and service categories to be used in the main study. In the first pretest, 27 householders of a middle class, professional apartment complex in Florida evaluated twenty-five different product and service categories. In each category, respondents rated three or four attributes on the degree of confidence in the product manufacturers or service providers' stated attribute performance. A copy of the questionnaire is provided in Appendix A.

The respondents made the evaluations on seven-point scales ranging from absolutely unconfident to absolutely confident. Each attribute was evaluated in three situations: before having tried the product or service (situation A), after having tried it once (B), and after prolonged use (C). As expected, all attributes in all categories show increasing confidence ratings as one moves from situation A to C. Attributes showing high average confidence in situation A can be considered search attributes. Attributes with low average confidence in situation C are credence attributes. Categories having attributes of both types are desirable for the purposes of this research. Hence, categories with the highest discrimination between their most search-like attribute and most credence-like attribute were selected. Using this criterion, five of the twenty-five original categories were initially selected: airlines, automobile tires, insurance, personal computers, and sneakers.

A second, independent sample of 30 householders from the same population responded to a second questionnaire, rating the expertise and social involvement of three or four firms that market products or services in each of the twenty-five categories. A copy of this questionnaire is included in Appendix B. The scale ranged from very unfavorable to very favorable in single-item seven point scales. Given the intent to manipulate social involvement and expertise, it is desirable that the selected categories have firms that do not significantly differ in terms of their existing images in both of these variables. None of the five categories selected in Pretest 1 contained firms significantly distinguishable in terms of expertise or social expertise ($p>0.1$ in all the categories). However, publicity at the time of the research about firms in the athletic shoe industry using cheap labor overseas prompted the exclusion of the sneaker category.

In sum, Pretests 1 and 2 served to select four out of twenty-five initial product or service categories. Airlines, computers, life insurance, and tires adequately qualify for the research requirements of having attributes with different credence levels and having brands that are not *a priori* differentially perceived in terms of social involvement and technical expertise.

Pretest 3: Manipulation check and assessment of attribute credence level in a choice setting

A third pretest was conducted in order to assess the confidence level in the attributes and to check manipulations of the firms' technical expertise and social involvement. This time, a conjoint choice setting was employed. This enabled the assessment of the perceived credence level of the attributes after the cognitive exercise that is involved in choice tasks with extensive use of the attributes' manipulations. To assess the perceived credence level, the participants were asked to report on a seven point scale how confident they were when a manufacturer or service provider provide information about the performance of each of its product or service's characteristics. The lower the confidence in the company-reported information on attribute performance, the higher its credence level.

One hundred business undergraduate students responded to the pretest in exchange for one extra credit in their Principles of Marketing class. Each of them was randomly assigned to one of five categories. These encompassed three of those initially selected categories (airlines, computers, and tires), one substitution category (health care plans for life insurance), and one additional category (mattresses). Each of the categories had a sample size of 20 students.

Because it is a variable of interest in this research, it is desirable that the categories used have attributes differing in perceived confidence or credence level. Table C-1 in Appendix C shows means and standard deviations of the confidence in the four tested functional attributes in each of the five pretested categories. Within each category, attributes are listed in order of increasing expected credence level (or decreasing confidence level).

The pretest results show that the attributes follow the general expected pattern of credence level. The only counterintuitive result is the high confidence in the attribute “pilot training,” in the airline category. This indicates that respondents take it for granted, possibly because governmental supervision is assumed. On the other hand, variance is high in the perceived confidence ratings. Thus, the difference in confidence between the least and the most credence attributes in each category is not significant at the 5% level, except for the health-plan category. The tire category is the one with the lowest t-statistic (t=1.04) for the difference between the least and most credence attribute, given both small confidence differences and high variance. For this reason, it was excluded from the subsequent survey. The category of computers also has poor discrimination of attribute confidence. However, the fact that the pretest was conducted with college students may have contributed to the high confidence in the performance of all attributes, given that students tend to be familiar with the product class. Therefore, the computer category was maintained for the main survey, under the assumption that the general population knows less about computers than college students, and that this would increase the credence level of at least some of its attributes.

In order to check the effectiveness of the manipulations of social involvement and technical expertise, specific scales were developed to capture the perceived levels of these constructs. Each scale was composed of 6 items measured on 7-point scales anchored with "strongly disagree" and "strongly agree." The twelve items, plus three filler items related to pricing practices were evaluated for each of the three brands offered for choice. Each brand had its firm's social involvement and technical expertise manipulated in two levels. To avoid brand-specific effects, the sample was counterbalanced such that half of the respondents of each category faced each brand with one level of the manipulation, and the other half faced the other level, both for social involvement and for technical expertise. As expected, factor analysis of the data indicates that three factors are present (social involvement, technical expertise, and price). However, two of the social involvement items load highly also on the price factor—and substantially lower than the other items on the social involvement factor. Both items were dropped from the scale. The factor analysis was conducted with the data from each of the four categories and with the pooled data. The results show consistency across all five data sets.

The effectiveness of the manipulations of social involvement and technical expertise can be tested by regressing the combined retained items on the manipulation levels. As expected, the perception of social involvement and technical expertise are explained by their respective manipulations ($p<0.01$ in all the five categories, for both variables), but not by the manipulation of the other characteristic ($p>0.20$ in all cases). Table C-2 in Appendix C presents the regressions' parameters.

After filling out the questionnaire, in Pretest 3 the respondents were asked to answer a series of open-ended questions evaluating the questionnaire and checking for demand artifacts. Overall, the respondents found the choice tasks realistic and involving. With the exception of one participant, none of them associated the study to firms' social involvement. This was in spite of the fact that the questions on personal values at the end of the questionnaire stressed social values. Therefore, demand artifacts are unlikely in this questionnaire.

In sum, three conclusions can be derived from Pretest 3. First, in the pretested categories, the attributes selected to describe and differentiate the brands tend to follow an intuitive pattern of credence level in a conjoint choice setting, although high variance is present. The category with the lowest distinction of attributes with respect to credence level—tires—was excluded form the survey for this reason. Second, the manipulations of social involvement and technical expertise are effective across the tested categories. Third, demand artifacts are unlikely, in spite of the strength of the manipulations and the collection of measures linked to the variables of interest.

Main Study

In this section, the features of the main study are introduced. First, the sampling is detailed. A description of the questionnaire follows. Next, the research design is presented in two parts, one relating to the between-subject design, and the other to the within-subject design.

Sampling details

The data collection in the main study was accomplished via a mail survey with conjoint choice tasks. Each questionnaire dealt with one of the four selected categories. A total of 5,800 questionnaires were mailed to a random sample of households in Central and North Florida. The number of respondents was 660, indicating a response rate of 11.4%. However, the true response rate cannot be assessed, given that third class mailing was used, and it does not assure postal return. Of the returned questionnaires, 593 were usable (21 arrived late, and 36 were discarded, mainly due to multiple choices in several tasks). The mail-out was done in two batches. The first one, of 3,000, was followed by a postcard reminder after ten days. The response rate of this batch was 10.2%. The second batch included the incentive of one hundred-dollar prize drawings and was followed by two weekly reminders. The return rate was 12.6%. Analysis of the demographic and personal values data indicates no significant differences between the two batches.

Given that in the first batch the airline category presented the highest response rate, and computers the lowest, the second batch was mailed with airlines having the smallest proportion of the questionnaires (15%), and computers with the largest (30%). Despite these measures, the unbalance among the categories could not be totally corrected. Of the 593 questionnaires usable questionnaires, 165 correspond to airlines, 124 to computers, 153 to health care plans, and 151 to mattresses.

Questionnaire structure

The research participants filled out a questionnaire composed of four parts, following a cover letter explaining the purpose of the research simply as "understanding how consumers choose products and services." In its initial part, the questionnaire presented the social involvement and technical expertise profiles of three choice alternatives. Next, respondents were asked to state their choices and considered alternatives under different scenarios. Then, a manipulation check for social involvement and expertise was performed, and a measure of the attributes' credence level was obtained. The final section of the questionnaire collected information on demographics and personal values. A copy of the questionnaire for one of the four product or service categories is shown in Appendix D.

Company profiles

The manipulation of the level of social involvement and expertise was done as between-subject treatments. The intent of leaving these two variables as between-subject treatments was to imply that the companies actually have the levels of both of the variables that were communicated in the questionnaire.

The survey began by presenting a research setting, introducing a hypothetical choice situation among three different brands, each described in terms of its social involvement and technical expertise. The respondents were told that an independent publication rated the companies on both characteristics. The meaning of both constructs was provided in broad, general terms. For instance, social involvement was presented as "the company's activities to protect the environment, donate money to charities, have employees volunteer for community programs," plus some category-specific type of social involvement, such as "donating transportation to needy people requiring travel for medical reasons" (in the airline category). For both constructs, each of the three companies is rated either as "the company is average" (manipulation for low), or "the company is exceptionally good" (for high).

To grant realism to the choice tasks, the three alternatives were real companies. In addition to meeting the criteria in the pretests, the participating companies were selected based on similarity in size and overall quality, using information from the *Consumer Reports* magazine, and in marketing strategies (such as using the same distribution channel).

Of the sixty-four possible combinations of the three companies described as high or low in social involvement and expertise, eight are sufficient to contrast the main effect of brand and the two variables of interest, using a fractional factorial design (Hahn and Shapiro 1966). From the eight potential sets, each respondent was presented with a single set of three firms' profiles. In each category, this corresponds to a 3x2x2 between-subject design (three brands, two levels of social involvement, and two levels of expertise).

The questionnaires were evenly distributed among the eight contrasts in the four categories. Of the usable questionnaires, the cell with the largest number of questionnaires had n=31 elements (in one of the airlines questionnaire versions), and the one with the smallest had n=10 (in one of the computer versions).

Choice tasks

In the questionnaire, the choice tasks or scenarios were presented after the companies' profiles. A graphical example illustrated how respondents should fill in their choice (among the three brands, plus the option "none of these alternatives"). Across scenarios, the three alternatives varied in terms of two levels of price and four functional attributes. Dollar figures of the prices had one of two values, fifteen to twenty percent apart. The two levels of the functional attributes were "just meets industry standards" (manipulations for low), and "much better than industry standards" (high). The levels of the attributes were stressed to be self-reported by the companies. A list of the three brands and four functional attributes used in each category is presented on Table E-1, in Appendix E. In order to enhance the uniformity of the attributes' meanings and to try to reduce the variance in the perceived credence level of the functional attributes, a glossary defining each attribute was provided on a separate sheet (see Appendix D).

With three firms varying in two levels of price and four functional attributes, the choice tasks represented a 2^{15} within-subject design. A fractional factorial design with sixteen contrasts is sufficient to estimate the main effect of price and the functional attributes varying across the three brands (Hahn and Shapiro 1966).

Since the within-subject design is embedded in the between-subject design, the full design in each of the four categories is $3x2x2x2^{15}$. Interactions among the variables inside the within and between-subject designs cannot be assessed with the design selected, but the parameters of the interaction terms between variables in each of the designs can be estimated (e.g., between social involvement and the functional attributes).

Measures

The dependent variable for the consideration set formation model is simply the stated consideration or nonconsideration of each of the alternatives. For the choice model, the dependent variable is simply the stated choice among the three alternatives and the "none of the alternatives" option.

The explanatory variables social involvement, expertise, price, and functional attributes are the manipulated levels of these variables. The social involvement and expertise manipulations were checked through the respective four and six-item scales developed in the pretest. These were measured on 7-point scales anchored by strongly disagree—strongly agree. The four items measuring perceived social involvement have adequate internal reliability, even when conservatively measured across the three brands. This is consistent across the four categories (Cronbach's α ranging from 0.85 to 0.88). The six item scale for technical expertise also has adequate internal reliability in all four categories (Cronbach's α ranging from 0.87 to 0.94). The items for both scales are shown on Table E-2, in Appendix E.

In principle, the measures comprising the above scales could be used in the place of the manipulations. However, it is preferable to use the manipulations themselves as measures of the constructs. First, because the scales confirm the manipulations of social involvement and expertise over the sample of respondents. Second, some of the respondents may have interpreted that the measures referred to their perceptions *prior* to the survey. To the extent that this may be true, using the scales could bring spurious variance into the analysis. On the other hand, using the manipulations themselves assumes that participants completely internalized the treatments. Since this assumption is supported by the manipulation checks, the analysis in the next chapter uses the treatments as the measures of social involvement and expertise. That is, observed, not latent variables represent these constructs in the model estimation.

For the credence level of the functional attributes, the measures followed a 7-point single-item rating scale format. The question asked the respondents to state their "confidence in the information provided by the company" for each attribute, with the ratings anchored by "not very confident" and "very confident."

The personal values were assessed by an extended variation of the widely used Rokeach Value Survey (Rokeach 1968, 1973). While the original Rokeach's scale is construed by rank-ordering a set of eighteen "terminal values," this research followed a Likert scale format. Each value was individually ranked on a 7-point scale anchored by "not very important—very important." Besides making the respondent's task easier, the advantage of using such variation is to allow for the isolation of values relevant to social involvement. In fact, previous research has found a number of factors underlying the original Rokeach values (e.g. , Crosby et al. 1990, McQuarrie and Langmeyer 1985, Prakash and Munson 1985, Vinson et al. 1977). Moreover, previous work has concluded that the anchored scaling format is an appropriate alternative to Rokeach's rank order of the terminal values. It has found no significant differences of test-retest reliability (Munson and McIntyre 1979).

In another change relative to the original Rokeach scale, one of the items was split in two, and nine new ones were added to the original eighteen. Hence, the scale used in this study to measure personal values comprised a total of twenty-eight items. The added items were intended to explore in more depth the person's social values. Table E-3 in Appendix E presents the list of items used in this research, with the respective factor loadings. The list also indicates the corresponding items in the original Rokeach Value Survey.

Factor analysis of the twenty-eight items indicates that six value dimensions are present (66% of the variance explained). These value dimensions resemble some previous reports of components of the Rokeach's terminal values. Additionally, with the introduction of specific items related to social issues, two factors emerge as different aspects of social values.

The initial two factors are associated with social values. The first relates to society as an entity closer to the individual, linked to her or his community, and more oriented to charity. Representative items loading in this value include charitable giving, helping the community, and close relationships with others (see Table E-3). This value can be called "community orientation," and is referred as social value 1 (SV1) in the remainder of this dissertation.

The second factor can be traced to society as a broader entity, linked to humankind. It can be called "global social orientation," and is referred as social value 2 (SV2 hereafter). Representative items include environmental concerns, natural beauty, world peace, equal opportunity, and freedom of choice. Previous research found several of the items in SV2 as reflecting "social harmony" or "self-actualization" (Vinson et al. 1977), an "aesthetics factor" (Prakash and Munson 1985), or "idealism" (Crosby et al.

1990). The corresponding factors for the original Rokeach's items found in previous research are presented on Table E-4 in Appendix E.

The third factor reflects "self-actualization," as found previously by Crosby et al. (1990), or the "sapience" factor of Prakash and Munson (1985). Taking care of loved ones, friendship, self-respect, and wisdom are the items in this value. The fourth factor indicates the value of "pleasure of the self", or "hedonism" (Crosby et al. 1990), or "personal gratification" (Vinson et al. 1977). Happiness, pleasure, exciting life, comfort and prosperity, and mature love reflect this value. The fifth factor reflects the value of "social success," and does not seem to have been isolated in previous research. It includes ideas of social recognition, and community respect. Finally, the sixth factor seems to indicate "conservatism," for uniting concerns of national security and eternal life. In previous research, these items were found to load in the idea of "social harmony" (Vinson et al. 1977).

The two values of interest for this research are SV1 and SV2. In principle, either one can be conceptually adequate for the hypotheses related to personal value. It is not within the scope of this study to make inferences about different types of social involvement that could be related to consumers with different social values. Therefore, the analysis of the data employs both SV1 and SV2. Both SV1 and SV2 factors have adequate internal reliability, with Cronbach's α for SV1 is 0.87, and for SV2 is 0.83.

Summary of the Method

This chapter has described the data collection method. The description of the pretest shows how the research settings were selected. Specifically, four categories of products and services were picked such that the credence level maximally differentiated their attributes, and that brands indistinguishable in terms of *a priori* social involvement and expertise images were available. Next, the research design necessary to operationalize the model was introduced in the questionnaire description. Finally, the measures were presented. In particular, the measures for personal social values were described and compared to subfactors previously found in the prevalent Rokeach scale.

CHAPTER 6
RESULTS

This chapter presents the results of the consideration set formation and choice model estimation. In both cases, the estimation process starts with the most complete model specification that can be estimated with the measured variables, within the conceptualization presented in Chapter 4. Subsequently, the models are refined to simpler specifications supported by the data. Both consideration set formation and choice models are estimated separately for each of the four product or service categories.

Consideration Set Model Estimation

As discussed in Chapter 4, the consideration of an alternative can be treated as a binomial variable—an alternative is either considered or not considered. Furthermore, in the choice setting employed in this research, the consideration of each of the three alternatives can be treated as a separate decision. This involves making the assumption that the consideration decision for a product is independent over preferences for other alternatives. This assumption may not be realistic, but it leads to consistent, though inefficient parameter estimates. Moreover, the consideration decisions are assumed to be independent across choice scenarios, with similar effects on the parameter estimates.

In this research, the decision of the inclusion of a brand in (or, alternatively, the exclusion of a brand from) the consideration set is a function of its utility to the consumer. To assess the role of the variables of interest, the utility is modeled as a linear function of price, the four investigated functional attributes, the firm's social involvement (SI, hereafter) and expertise (E, hereafter), and an interaction term between social involvement and the personal social values SV1 and SV2. In addition, to check whether they play a role in the consideration set formation, all the interaction terms of social involvement and expertise with the attributes are introduced in an initial estimation.

In this research, the decision about the inclusion of a brand in the consideration set is made for each of the three brands presented in each choice scenario. Given that the effects may differ across brands, a different set of parameters is estimated for each brand. That is, the initial, most complete consideration set formation model allows a different set of parameter estimates for each brand.

However, this full model can be simplified to some extent by testing the parameter equality across brands for each of the variables in the model. The proper test for this—and subsequent—parameter constraint is the likelihood ratio test. It compares full models that allow individual sets of parameters for each brand with the nested models in which parameter equality across brands has been imposed. The likelihood ratio test-statistic is given by twice the difference between the log-likelihoods of the restricted and full models, and is asymptotically chi-squared distributed with as many degrees of freedom as the number of constraints imposed on the parameters.

A first empirical question here is whether the price, functional attributes, and related interaction terms have different parameters across brands. In all four categories in this study, the data support the hypothesis of parameter equality across brands for the parameters of price, the four functional attributes, and their interactions with social involvement and expertise. The test-statistics comparing models constrained and unconstrained in terms of parameter equality across brands have the values of 22.1, 35.2, 17.7, and 27.47, for airlines, computers, health plans and mattresses, respectively (from now on, the test-statistics for the four categories will always be reported in this order). Given that thirty parameters have been constrained, in all four categories the test-statistics are nonsignificant at the 5% significance level ($\chi^2_{0.05}(30 \text{ d.f.}) = 43.8$). Hence, the hypothesis of parameter equality across brands for these variables cannot be rejected. Therefore, all subsequent analyses are performed using price, attributes, and related interactions as referring to a generic "average" brand.

All other variables cannot have their parameters equalized across brands in all categories. However, further simplification can be done after noticing that all parameters for the interactions of social involvement and expertise with price and the attributes are nonsignificant. Constraining the parameters for these interaction terms to zero does not significantly reduce the explanatory ability of the estimated models. The likelihood ratio test-statistics for such constrained models are 9.8, 0.2, 2.8, and 3.9. Hence, the hypothesis of null parameters for these interactions cannot be rejected at the 5% level ($\chi^2_{0.05}(10 \text{ d.f.}) = 18.3$) in all four categories. In fact, these terms have no conceptual support in the model presented in Chapter 4.

After the empirically supported simplifications above, the models estimated for the four categories are presented on Table 2. In this table, the brands A through C, and attributes 1 through 4 are in the same order as the brands and attributes listed on Table E-1 in Appendix E.

The four estimated models[1] have McFadden's ρ^2 (AIC) around 0.4. This is a goodness-of-fit statistic similar to the coefficient of determination in regression, with a correction for the degrees of freedom comparable to the Akaike Information Criterion (AIC). The level of the goodness-of-fit measure of the estimated models is in the reasonable-to-good range (Intelligent Marketing Systems, Inc. 1994).

No brand-specific constant is offered for brand C, which was set as the baseline. The consideration constant is related to an overall propensity of including a brand in the consideration set, regardless of its characteristics. The fact that it is significant and positive indicates that the probability of considering any brand offered in the scenarios is greater than the probability of not considering it, all else being equal. The brand-specific constants are linked to the probability of including each specific brand in the consideration set, relative to the baseline brand (here, brand C), all else being equal. In the two first categories, brand A has a higher probability of being included than its counterparts, all else being equal. In the health-plan category, both brands A and B have a higher probability of being included. Only in the mattress category is there no significant difference in the consideration probability of any of the three brands.

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[1] The models above, as well as all multinomial logit models in this research, were estimated using the software Ntelogit, version 2.1 (Intelligent Marketing Systems, Inc. 1994).

Table 2: Consideration Set Formation Models

	category			
variable	airlines	computers	health plans	mattresses
consideration constant	1.72^{***}	1.81^{***}	1.51^{***}	1.77^{***}
brand A	0.24^{***}	0.29^{***}	0.21^{***}	0.09
brand B	0.09	0.00	0.17^{**}	-0.04
brand C	0	0	0	0
price	-0.36^{***}	-0.09^{**}	-0.16^{***}	-0.24^{***}
attribute 1	0.05^{*}	0.29^{***}	0.22^{***}	0.22^{***}
attribute 2	0.15^{***}	0.50^{***}	0.27^{***}	0.34^{***}
attribute 3	0.21^{***}	0.38^{***}	0.52^{***}	0.38^{***}
attribute 4	0.40^{***}	0.19^{***}	0.22^{***}	0.25^{***}
expertise for brand A	0.24^{***}	0.24^{***}	0.33^{***}	0.45^{***}
expertise for brand B	0.24^{***}	0.40^{***}	0.18^{***}	0.22^{***}
expertise for brand C	0.36^{***}	0.12^{*}	0.38^{***}	0.52^{***}
social involvement for brand A	0.08	0.49^{***}	0.29^{***}	0.39^{***}
social involvement for brand B	0.18^{***}	0.29^{***}	0.17^{***}	0.33^{***}
social involvement for brand C	0.13^{**}	0.10	0.37^{***}	0.20^{***}
SI*SV1 for brand A	0.22^{***}	-0.06	0.35^{***}	0.20^{***}
SI*SV1 for brand B	-0.04	0.26^{***}	-0.32^{***}	-0.04
SI*SV1 for brand C	-0.23^{***}	-0.02	-0.37^{***}	0.02
SI*SV2 for brand A	-0.13^{*}	0.20^{***}	-0.17^{**}	-0.17^{**}
SI*SV2 for brand B	0.25^{***}	0.05	-0.02	-0.14^{*}
SI*SV2 for brand C	0.55^{***}	0.40^{***}	0.36^{***}	-0.22^{***}
McFadden's ρ^2 (AIC)	0.393	0.427	0.380	0.384
number of decision sets	7764	6018	7368	7218

*** $p<0.01$
** $p<0.05$
* $p<0.10$

Price and all functional attributes have highly significant parameters (except for the "leg room" attribute in airlines, which is marginally significant). Hence, all have a role in determining the consideration probability of a brand. As one can expect, price has a negative effect and functional attributes have a positive effect on consideration. The fact that all except one of the parameters have highly significant estimates ensures that the attributes selected for this research play a role in the consideration set formation. However, this should not be overstated, given the large sample size (a high number of cases was generated, as each respondent made the decision 48 times—for 3 brands across 16 scenarios).

Technical expertise affects the consideration of a brand in the same direction and similar magnitude as the functional attributes. Unlike the functional attributes, the effects of expertise may vary across brands. In fact, the parameter equality across brands can be rejected for computers (likelihood ratio test-statistic of 9.4, compared to $\chi^2_{0.05}(2 \text{ d.f.}) = 5.99$), health plans (test-statistic of 7.2), and mattresses (14.0), although not for airlines (3.4).

The effect of social involvement on consideration set formation is also positive for all the brands, and of similar magnitude as the functional attributes and expertise. The effect is significant in all cases, except for one of the brands in two of the categories. As with expertise, the social involvement parameter equality across brands is rejected for some categories—computers (likelihood ratio test-statistic of 17.1, compared to $\chi^2_{0.05}(2 \text{ d.f.}) = 5.99$), and health plans (test-statistic of 7.1)—and not for others—airlines (1.5), and mattresses (5.2).

The final terms in the consideration models are the interaction terms of social involvement with personal values. The average scores of the items that constitute SV1 and SV2 are the measures of personal social values. However, using these raw measures poses a threat of collinearity between the measures of social involvement and its interaction term with the personal values. Respondents tend to classify most of the personal value items as highly important. This leads to small variance of these measures when compared to the other measures employed in the study, in particular with social involvement. To avoid collinearity problems, the differences from the means were used as measures of SV1 and SV2.

Both personal values relevant to social involvement, SV1 and SV2, have significant interactions with social involvement for at least one of the brands. However, not only is the effect not prevalent in all brands, but it acts in one direction for some of them, and in the opposite direction for others. It is possible that such lack of coherence in the parameter estimates arises from collinearity between the two personal values. A clearer picture can be provided by models in which only one of the two personal values is present. No theoretical basis favors either of the two personal values. Therefore, different models with only one of the personal values interacting with social involvement are in order, even at a cost of some explanatory ability.

Since leaving out of the model one of the interaction terms does not notably change the parameter estimates of the variables that do not include personal values, only the SI*SV interaction terms are reported in Table 3. Models A include just SI*SV1 terms, and models B include just SI*SV2 terms.

Table 3: Consideration Set Formation Models with Only One Personal Value

	category							
	airlines		computers		health plans		mattresses	
variable	model A	model B	model A	model B	model A	model B	model A	model B
SI*SV1 for brand A	0.17^{***}	fixed to 0	0.05	fixed to 0	0.26^{***}	fixed to 0	0.11^{**}	fixed to 0
SI*SV1 for brand B	0.05	fixed to 0	0.28^{***}	fixed to 0	-0.32^{***}	fixed to 0	-0.10^{*}	fixed to 0
SI*SV1 for brand C	-0.02	fixed to 0	0.17^{***}	fixed to 0	-0.17^{***}	fixed to 0	-0.10^{*}	fixed to 0
SI*SV2 for brand A	fixed to 0	-0.01	fixed to 0	0.18^{***}	fixed to 0	0.00	fixed to 0	-0.05
SI*SV2 for brand B	fixed to 0	0.23^{***}	fixed to 0	0.17^{***}	fixed to 0	-0.16^{***}	fixed to 0	-0.17^{***}
SI*SV2 for brand C	fixed to 0	0.40^{***}	fixed to 0	0.38^{***}	fixed to 0	0.17^{***}	fixed to 0	-0.21^{***}
McFadden's ρ^2 (AIC)	0.387	0.391	0.424	0.426	0.377	0.373	0.384	0.385
number of decision sets	7764		6018		7368		7218	

*** $p<0.01$
** $p<0.05$
* $p<0.10$

Table 3 also shows mixed results. For two of the categories—airlines and computers—the higher the personal social value, the higher the importance of social involvement in consideration set formation, regardless of the personal value used in the model. However, only some brands present a significant interaction effect while others do not. For the other two categories—health plans and mattresses—no defined pattern arises across brands. Some of the significant interaction effects are positive, and some are negative, and this varies across brands and personal value utilized. In summary, as a person's social value increases, social involvement can become more or less important, or even remain the same, depending on the specific brand and personal value chosen. This suggests that personal values do not have a well defined moderating effect on social involvement in consideration models.

Choice Model Estimation

Empirical choice modeling work to date has assumed that the choice decisions are independently made across scenarios. This produces consistent, though inefficient parameter estimates. That is, the standard errors of the parameters may be underestimated, hence, their t-statistics can be inflated.

As stated in Chapter 4, an individual's choice probability of a brand is assumed to be a function of the utility accrued by the brand relative to the utility accrued by each of the other alternatives. The alternatives include the three brands, plus a "none of the alternatives" option. The utility is modeled as a function of price, four functional attributes, expertise, social involvement, the interaction terms of expertise and social involvement with price and the attributes, and the interaction terms of social involvement with the individual's personal values. The intercepts correspond to the alternative-specific constants for the three brands ("none of the alternatives" is the baseline). In order to avoid biased estimates of the utility function parameters (Swait and Ben-Akiva 1987), the individual's choice of a brand is modeled conditional on the brand's inclusion in the self-reported consideration set, assuming that the self-reported is the "true" choice set. That is, in each choice scenario, only the alternatives stated to have been considered by the respondent are included in the log-likelihood function constructed for the estimation of the parameters.

The full model has parameters that are specific to the three brands for each of the variables of interest. As before, such model can be simplified by examining the empirical question of whether the parameter estimates are equal across brands. This has been verified for each variable or set of variables.

Beginning with the interaction terms, the hypothesis of equality across brands of the interaction terms of social involvement and expertise with price and the attributes were tested. In all four investigated categories, it could not be rejected at the 5% confidence level. The test-statistics comparing the full model with the one constrained for the equalities are 24.9, 17.7, 30.8, and 26.9, all under the critical $\chi^2_{0.05}$(20 d.f.) = 31.4. Therefore, all subsequent analysis is presented assuming an average "generic" brand for these interaction terms.

On the other hand, parameter equality across brands is rejected in all four categories when imposed simultaneously on the parameters of price and attributes. Constraining the ten parameters reduces the log-likelihoods such that test-statistics of 29.3, 35.9, 40.1, and 28.3 are generated; all are significant when compared to $\chi^2_{0.05}$(10 d.f.) = 18.3. Hence, brand-specific parameters of price and attributes are retained in the models estimated next.

Expertise is a variable that affects choice in a homogeneous way across brands. The equality of the parameters across brands cannot be rejected in all four categories. The test-statistics are 1.1, 0.8, 1.8, and 1.0 respectively, compared to $\chi^2_{0.05}$(2 d.f.) = 5.99. The same is not true for social involvement. The equality of the parameters across brands cannot be rejected for airlines (test-statistic of 2.6, compared to the critical value of

$\chi^2_{0.05}$(2 d.f.) = 5.99) and computers (test-statistic of 2.7) but is rejected for health plans (15.9) and mattresses (10.5). Given that the effect of social involvement is brand-dependent in some cases, the parameters for this variable and expertise are reported for each brand in the models below.

For the same reasons pointed out in the consideration models, some care has to be taken with respect to the interaction term of social involvement and the personal social values SV1 and SV2, given that collinearity can be present. To overcome the problem, the difference from the means were also used as measures of SV1 and SV2 in the choice models estimation.

Table 4 presents the models estimated taking into consideration the empirical support for the equality across brands for some variables. The estimated models involve choices made among four alternatives. One basic assumption to estimate the multinomial logit model is that the random components of the utility function are independently and identically distributed, which leads to the Independence of Irrelevant Alternatives (IIA) property of the model. Since more than two alternatives are present in the model, it is important to check whether this property holds. This can be done with the Hausman-McFadden test (McFadden 1987). Violations of the IIA property occur if two or more alternatives share common unobserved characteristics not specified in the model. The Hausman-McFadden test checks the impact of the omission of cross-effects on characteristics of alternatives excluded from the choice set. In all four categories, this test reveals that IIA cannot be rejected for the exclusion of each of the alternatives or any grouping of the alternatives (p>0.5 in all tests).

Table 4: Choice Models

variable	category			
	airlines	computers	health plans	mattresses
ASC brand A	2.40^{***}	1.29^{***}	1.82^{***}	1.59^{***}
ASC brand B	2.39^{***}	1.44^{***}	1.61^{***}	1.37^{***}
ASC brand C	2.44^{***}	1.18^{***}	1.55^{***}	1.60^{***}
ASC “none of the alternatives”	0	0	0	0
price for brand A	-0.85^{***}	-0.12^{*}	-0.23^{***}	-0.29^{***}
price for brand B	-0.99^{***}	-0.50^{***}	-0.51^{***}	-0.64^{***}
price for brand C	-0.92^{***}	-0.46^{***}	-0.48^{***}	-0.51^{***}
attribute 1 for brand A	0.37^{***}	0.43^{***}	0.60^{***}	0.36^{***}
attribute 1 for brand B	0.42^{***}	0.30^{***}	0.50^{***}	0.51^{***}
attribute 1 for brand C	0.03	0.44^{***}	0.31^{***}	0.36^{***}
attribute 2 for brand A	0.38^{***}	0.64^{***}	0.32^{***}	0.45^{***}
attribute 2 for brand B	0.42^{***}	0.54^{***}	0.20^{***}	0.42^{***}
attribute 2 for brand C	0.27^{***}	0.76^{***}	0.40^{***}	0.47^{***}
attribute 3 for brand A	0.12^{**}	0.35^{***}	0.74^{***}	0.53^{***}
attribute 3 for brand B	0.13^{**}	0.29^{***}	0.69^{***}	0.45^{***}
attribute 3 for brand C	0.26^{***}	0.36^{***}	0.61^{***}	0.47^{***}
attribute 4 for brand A	0.76^{***}	0.70^{***}	0.71^{***}	0.61^{***}
attribute 4 for brand B	0.77^{***}	0.46^{***}	0.46^{***}	0.52^{***}
attribute 4 for brand C	0.65^{***}	0.51^{***}	0.48^{***}	0.39^{***}
expertise for brand A	0.58^{***}	0.57^{***}	0.51^{***}	0.69^{***}
expertise for brand B	0.63^{***}	0.54^{***}	0.51^{***}	0.65^{***}
expertise for brand C	0.54^{***}	0.62^{***}	0.61^{***}	0.73^{***}
social involvement for brand A	0.42^{***}	0.24^{***}	0.14^{**}	0.33^{***}
social involvement for brand B	0.29^{***}	0.38^{***}	0.45^{***}	0.52^{***}
social involvement for brand C	0.32^{***}	0.29^{***}	0.38^{***}	0.26^{***}

Table 4—continued:

	category			
variable	airlines	computers	health plans	mattresses
expertise*price	-0.06	0.09*	0.02	0.05
expertise*attribute 1	-0.05	-0.06*	-0.04	-0.01
expertise*attribute 2	-0.04	-0.13***	-0.07**	-0.09***
expertise*attribute 3	-0.02	-0.01	-0.05	-0.06*
expertise*attribute 4	-0.08**	-0.12***	-0.11***	-0.07*
social involvement*price	0.05	0.03	0.08**	0.10***
social involvement*attribute 1	-0.12***	-0.04	-0.10***	-0.09***
social involvement*attribute 2	-0.01	-0.08**	-0.11***	-0.09**
social involvement*attribute 3	-0.00	-0.05	-0.04	-0.08**
social involvement*attribute 4	-0.11***	-0.04	-0.10***	-0.05
SI*SV1 for brand A	-0.05	0.15**	-0.18**	0.13*
SI*SV1 for brand B	0.00	0.19***	-0.10	-0.12*
SI*SV1 for brand C	-0.03	-0.23***	-0.10	0.02
SI*SV2 for brand A	0.04	0.10	0.16**	-0.13*
SI*SV2 for brand B	0.04	0.11*	0.07	0.43***
SI*SV2 for brand C	-0.04	-0.16**	0.10	0.06
McFadden's ρ^2 (AIC)	0.443	0.309	0.348	0.335
number of choice sets	2581	1978	2414	2368

*** $p<0.01$
** $p<0.05$
* $p<0.10$

The estimated models in the four categories have McFadden's ρ^2 (AIC) varying from 0.31 (computers) to 0.44 (airlines), which are in the reasonable-to-good range (Intelligent Marketing Systems, Inc. 1994).

The alternative-specific constants (ASCs) for the three brands ("none of the alternatives" is the baseline) are all positive and significant, in all four categories (here and throughout this dissertation, statistical tests are significant at the 5% level). This indicates simply that the probability of choosing each of the alternatives is greater than the probability of not choosing any alternative, all else being equal. Moreover, there is no big variation in the size of the alternative-specific constants across the three brands of each category, indicating that the probability of choice of the alternatives does not differ by much in each of the categories, all else being equal. Even so, only in the airline category the equality of the alternative-specific constants cannot be rejected (the likelihood ratio test-statistics are 0.6, 9.6, 12.7, and 10.4, compared to $\chi^2_{0.05}(2\text{ d.f.}) = 5.99$).

Price and functional attribute parameters are significant (with a single exception) and all in the expected direction. That is, in all categories and for all three brands the price decreases and the functional attributes increase the utility and, hence, the probability of choice, as one would expect.

A similar finding is true for expertise and social involvement. For all brands in the categories in the study, having a high level of these characteristics increases the brand's choice probability. Within each category, the magnitude of the effect for being "exceptionally good" on social involvement (as opposed to "average") is similar to being "much better than industry standards" (as opposed to "just meets standards") on the functional attributes. In comparing the effect-size of social involvement with price,[2] one finds that their magnitudes are also similar across brands, in three of the categories. The exception is the airline category, in which the negative effect of price on the utility is about twice as large as the positive effect of social involvement. This result may be due to the fact that among the categories in this study, airlines is the one with the lowest prices.

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[2] Recall that high and low price conditions differ by about 15-20% in all categories.

A direct comparison between the effect-size of social involvement and expertise indicates that some difference exists between the two. For all but one brand in the four categories, the importance weight of expertise is significantly greater than social involvement. In fact, across brands in all categories, the average ratio between the parameter estimates of expertise and social involvement is close to two, suggesting that the effect of being socially involved is about half of that of being an expert in the industry.

With respect to the interaction term of expertise with price and the attributes, the effects are not so evident. The interaction of expertise with price is not significant in any of the categories (marginally in computers). The interactions with the attributes are significant for some of the attributes in each category, but not for others.

Similar findings are true for the interactions of social involvement with price and the attributes. The interaction of social involvement with price is significant just for two of the categories—health plans and mattresses. As in the case of expertise, the interactions of social involvement with the attributes are significant for some of the attributes in each category, and not for others. On the other hand, there is a definite pattern in the direction of the interaction effects. The presence of high expertise or social involvement reduces the importance weight of the price and functional attributes. The contribution of price to utility is negative, but the interactions of price with expertise and social involvement have positive parameters in all but one nonsignificant case (price with expertise, for airlines). Hence, the presence of high expertise or social involvement reduces the overall effect of price on the utility function. Similarly, functional attributes contribute positively to the composition of the utility, while the interaction terms of each of the attributes with expertise and social involvement have negative parameter estimates. That is, the importance of the attribute is smaller when the alternative is high in expertise or social involvement.

One possible explanation for the direction of these effects may be the strength of manipulation of expertise and social involvement. In the survey, these two characteristics were ostensibly presented as being provided by an independent source, as opposed to company-reported information about the price and attribute levels. Therefore, some of the respondents may have placed great importance in this information. That is, the salience of social involvement and expertise may have resulted in lesser importance given to price and attributes. Moreover, this effect may have countered and even hindered an effect in the opposite direction, which would result from uncertainty reduction regarding attribute performance.

Given that the present model does not allow for taste variations, the estimated parameters represent an average among respondents who mainly used the independently provided information (that is, information on expertise and social involvement), and the ones who placed lesser importance on it. Unconstraining the model to allow for random coefficients does not seem feasible, given the size of the available sample. One way of shedding some light on the issue is trying to exclude respondents whose responses were driven fundamentally by social involvement or expertise and estimating models with reduced databases.

Here, the prime variable of interest is social involvement. Each respondent faced sixteen choice tasks. The most strict criterion that defines respondents driven by social involvement calls for retaining only respondents who did not choose any highly socially involved alternative. This is equivalent to excluding of the sample any respondent who made at least one choice of a high socially involved alternative, among the sixteen choices made. The second most strict criterion would retain those who made up to one choice of a highly socially involved alternative—and exclude all those who chose two or more, among the sixteen choices. The next less stringent criterion retains those who chose a socially involved alternative up to three times, and so on.

Figure 4 shows the plots, for the four categories, of the parameter estimates for the interaction terms of social involvement with each of the functional attributes, as one goes from a very strict exclusion criterion—retaining respondents who chose a maximum of two highly socially involved alternatives—to no exclusion at all—i.e., retaining respondents who chose up to sixteen highly socially involved alternatives (that is, all the respondents). The parameter estimates are plotted as bar graphs.

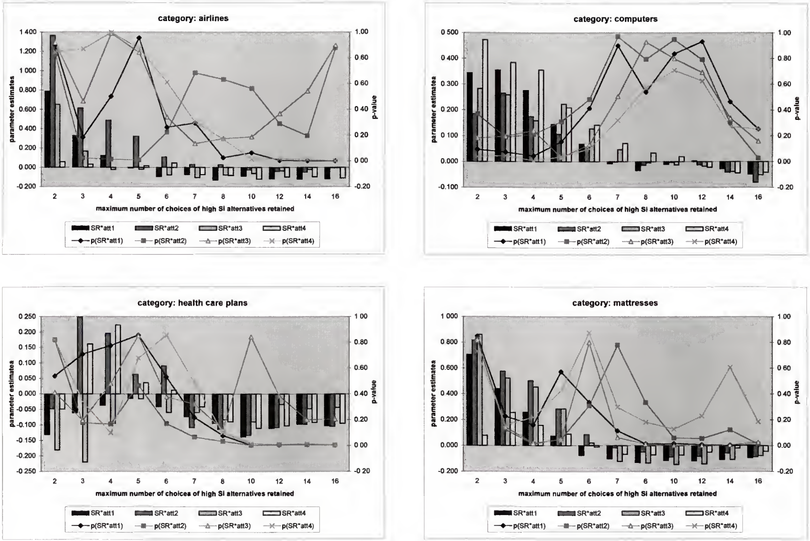

Figure 4: Behavior of the SI*attribute parameters with reduced datasets (restricted number of choices of high SI)

Although less clear for health care plans, a general pattern emerges across the four categories. The estimates are positive when the sample is more strictly restricted and decrease as the exclusion criterion becomes more and more lenient, to become negative estimates after a certain point. Although not conclusive, this is an indication that respondents who are faced with socially involved alternatives, but whose decision is not driven emphatically by this characteristic, may in fact weight the functional attributes more when the alternative is high in social involvement.

Also plotted in the graphs on Figure 4 are the p-values of the parameter estimates. Again, a general pattern rises, more notably in the computer and mattress categories. Under highly restrictive exclusion criteria, the p-values tend to be high, probably due to insufficient data points. As the exclusion criterion becomes more lenient, more data points are incorporated in the sample, and the p-values decrease (to under the 5% level in some cases). Next, in the region in which the parameter estimates are close to zero, the p-values become high again (in this region, it is possible that an averaging effect balances respondents who weight only social responsibility and those who do not). At subsequently less strict exclusion criteria, the p-values tend to decrease again, given the increasing sample size (and, possibly, the predominance of respondents who placed a great deal of importance on social involvement).

When the parameter for the interaction of social involvement with price for the same reduced data sets is plotted, a different pattern results. Here, no matter how constrained the data set is, the interaction parameters are always positive. Furthermore, the p-values have an overall decreasing trend as the sample size increases (Figure E-1, in Appendix E) .

In principle, similar patterns should be expected with respect to expertise, if it works as an uncertainty reducer, as social involvement seems to do. Since the treatment of expertise was identical to social involvement, respondents could have been drawn to choose alternatives high on expertise, reducing the role of the other characteristics on the decision process. Therefore, excluding of the sample respondents who used this heuristic could also lead to positive interactions of expertise with the attributes, as the equivalent process did in the case of social involvement. However, in the case of expertise, using an exclusion criterion like the one used for social involvement does not lead to the same well defined pattern of the interaction terms found with the SI*attribute terms (see Figure E-2, in Appendix E). With a couple of exceptions, the interaction parameters do not have positive values not even in the most reduced databases that allow convergent estimation. Moreover, as a general rule the p-values simply decrease steadily as the sample size increases.

The next variables in the models are the interaction terms of social involvement and the personal social values SV1 and SV2. As in the consideration set formation models, no pattern of the parameter estimates can be depicted from the results in Table 4. Some of the parameter estimates are significant, some are not. Some are positive, others negative. As in the consideration set formation, collinearity between SV1 and SV2 may have threatened the consistency of the estimates. Therefore, separate models for each of the personal values were estimated. They are shown in Table 5. Only the parameter estimates for the interaction of social involvement and the personal values are shown, given that constraining to zero the terms with one of the personal values does not affect the remaining estimates in any meaningful extent.

Table 5: Choice Models with Only One Personal Value

	category							
	airlines		computers		health plans		mattresses	
variable	model A	model B	model A	model B	model A	model B	model A	model B
SI*SV1 for brand A	-0.03	fixed to 0	0.19^{***}	fixed to 0	-0.09	fixed to 0	0.05	fixed to 0
SI*SV1 for brand B	0.02	fixed to 0	0.23^{***}	fixed to 0	-0.05	fixed to 0	0.09	fixed to 0
SI*SV1 for brand C	-0.05	fixed to 0	-0.30^{***}	fixed to 0	-0.04	fixed to 0	0.03	fixed to 0
SI*SV2 for brand A	fixed to 0	0.02	fixed to 0	0.17^{***}	fixed to 0	0.09^{*}	fixed to 0	-0.05
SI*SV2 for brand B	fixed to 0	0.04	fixed to 0	0.20^{***}	fixed to 0	0.02	fixed to 0	0.35^{***}
SI*SV2 for brand C	fixed to 0	-0.06	fixed to 0	-0.26^{***}	fixed to 0	0.06	fixed to 0	0.08
McFadden's ρ^2 (AIC)	0.443	0.443	0.308	0.306	0.347	0.346	0.331	0.335
number of choice sets	2581		1978		2414		2368	

*** $p<0.01$
** $p<0.05$
* $p<0.10$

The results on Table 5 also do not indicate any clear pattern for the way personal values interact with social involvement. Only in the computer category are the estimates significant for all brands, both for SV1 and SV2. However, even in this category the direction of the interaction is positive for two of the brands, and negative for the third one.

It can be seen that the results are mixed by comparing the significance of introducing personal social values in each of the categories. For airlines and health care plans, neither SV1 nor SV2 play any significant role on the importance of social involvement. In fact, one cannot reject the hypothesis that the interaction parameters for the three alternatives are all zero in both categories (for airlines, the likelihood ratio test-statistic is 1.0 when SV1 is used, and 1.0 when SV2 is used; for health plans, it is 3.0, and 4.1 respectively, compared to $\chi^2_{0.05}(3\text{ d.f.}) = 7.8$). In the mattress category, SV1 does not play a role (the test-statistic is 3.6), but SV2 does (30.5). For the latter, the interaction parameter is positive and highly significant for one of the brands, but not for the other two. On the other hand, for the computer category the interaction term improves the model for either personal social value (test-statistics of 45.7 and 33.1, using SV1 and SV2 respectively). However, for both values, two of the brands show a significant positive interaction, and the third brand shows a significant negative effect.

One final aspect to be investigated is the role of the credence level of the functional attributes. The model proposed in this research predicts that the interaction between social involvement and the functional attributes depends on the credence level of the attribute. This can be tested by expanding the model to incorporate the triple-way interaction term, using as measures of attribute credence level the ratings of the confidence in functional attribute information reported by manufacturers or providers. When this is done, the inclusion of the four triple-way interaction terms (one for each attribute) does not increase the log-likelihoods to the point of offsetting the loss of degrees of freedom. In the four categories, the likelihood ratio test-statistics have the values 2.7, 0.4, 4.9, and 6.5 ($\chi^2_{0.05}$(4 d.f.) = 9.5).

However, when using datasets reduced by the exclusion of respondents highly driven by social involvement, improvement can be noticed at least in one of the categories. In fact, comparing models estimated with respondents who chose at most four highly socially involved alternatives, the likelihood ratio test-statistics are 6.8, 2.7, 6.5, and 20.1 ($\chi^2_{0.05}$(4 d.f.) = 9.5). That is, for the mattress category, the inclusion of the information about the attribute credence levels improves the model significantly. Moreover, the model including the triple-interaction has significant parameters for all four social involvement by attribute interactions, compared to only two in the nested model.

Two possible aspects of the data can explain the limited effect of credence level. First, it is possible that the perceived credence does not differentiate the attributes much, due to the small differences across attributes in the perceived confidence level (similar means, large variances—see Table E-5, in Appendix E). This factor would limit the effect-size of the inclusion of the credence level in the model. Second, consumers seem to differ in the way they assess the confidence in the attributes. Consequently, the relative stated confidence level across attributes varies over respondents. That is, the order of the attributes in terms of confidence ratings varies significantly among the respondents. In fact, testing for the association between the attributes and their order based on the confidence ratings, the hypothesis of no general association cannot be rejected for airlines, computers, and health plans when the Pearson Chi-Squared and the Cochran-

Mantel-Haenszel tests are used. Only for mattresses is the no general association rejected. For the three categories in which there is no association, this finding suggests that different people assess the confidence they have in the attributes in different ways, or that more than one meaning is attributed to "confidence." For instance, some may relate confidence in an attribute to the actual belief they may have in the promised performance (actual performance uncertainty), while others may relate to its assessability (possibility of learning it).

Summary of the Estimated Models

In this chapter, the estimation results were presented both for the consideration and the choice models. In the consideration models, the main effects of price and attributes are significant and in the direction one would expect. Expertise and social involvement are significant for most of the brands in the four categories. They are all in the expected direction. However, the interaction terms of social involvement with personal values do not present a single behavior across brands and categories.

In the choice models, the main effects of price, attributes, expertise, and social involvement are also all highly significant, in the expected direction. The interaction terms of expertise and social involvement with price and attributes are not all significant. However, they present a pattern across all brands that suggests that the presence of expertise or social involvement reduces the importance consumers give to price and attributes in the utility formation. In order to investigate an effect in the opposite direction, that might have been hindered by the strength of the manipulation of expertise and social involvement, further analysis was carried out. In this analysis, respondents who attributed great importance to these variables, as identified by the choice of a large number of alternatives high in these characteristics, were excluded from the sample. The results suggest that social involvement may indeed interact with the attributes by increasing the importance consumers give to them. This is not observed for the interaction of social involvement with price, neither for the interactions involving expertise.

Introducing the measured credence level of the attributes as a covariate for the interaction between social involvement and the attributes did not significantly improve the model, when full samples were used. However, it did significantly improve the model of one of the categories when a restricted sample was used. This category turns out to be the only one for which respondents were consistent in the way they assessed credence level. Finally, as in the consideration models, no defined pattern of association was found between social involvement and personal social values.

The next chapter discusses the results presented here in light of the model and hypotheses proposed in Chapter 4, states the limitations of this research and the need of future investigation, introduces managerial implications, and draws conclusions from this research.

CHAPTER 7
DISCUSSION AND CONCLUSIONS

In this chapter the study's hypotheses are evaluated in conjunction with the obtained results, and alternative explanations are explored. The managerial implications from the results follow. Then, the limitations of the research, the questions posed by the results obtained, and the future research needed to answer them are presented. Finally, a conclusions section highlights the research's contributions.

Discussion of the Results

Here, the hypotheses enunciated in Chapter 4 are discussed *vis-à-vis* the results presented in Chapter 6. Following the enunciation of the hypotheses, the discussion is divided into the consideration set formation and the choice phases of the decision process. However, a general overview of the results is presented prior to the discussion of the hypotheses.

Overall Results

The pretests succeeded in selecting real companies with *prior* images that do not seem to influence the results in any decisive way. The respondents were aware of the companies but did not carry *a priori* strong beliefs about the constructs of interest. One evidence of this is given by the manipulation checks, which assure that the beliefs about social involvement and expertise were in fact shaped by the treatments, not by *prior* knowledge about the companies. This is an indication that even in the event of some self-selection—plausible in light of the low response rate—it should not have biased the results with respect to the variables of interest.

Moreover, the selected companies are homogeneous enough—in terms of characteristics left out of the model—such that no evidence of violation of the IIA property could be found in any of the four categories investigated.

Another aspect evidenced by the results is that they show high consistency across four different categories, particularly for the main effects. The categories studied include two products and two services. In both cases, the price involved in the decision varied by a factor of almost ten, ranging from hundreds to thousands of dollars. Moreover, one of the product categories (computers) has a higher service component than the other (mattresses), and the service categories differ in terms of tangibility (health plans are less tangible than airline trips). Nevertheless, the main effects of price, functional attributes, social involvement, and expertise are significant and have the same sign across all categories, both in the consideration set formation and in the choice models. Moreover, in the latter, the interaction terms of social involvement and expertise with the attribute levels are all in a consistent direction, regardless of attribute, brand, or category.

However, some weaknesses of the research must be pointed out, mainly with respect to the strength of the manipulations, and to the credence level of the attributes.

First, the manipulations of social involvement and expertise may have been too strong. Since this study was the first to tackle the problem, a strong manipulation was in order to check whether at least a main effect was present. Moreover, to make the treatments as objective as possible, they were attributed to an independent source. Even though it was necessary, the emphasis on the independent source of information on these characteristics, as opposed to the company-reported information on the attributes (also necessary), may have prompted respondents to overweight the importance of social involvement and expertise in their utility function. Consequently, indirect and more subtle effects may have been hindered.

With respect to the credence level of the attributes, the operationalization employed in this research elected to measure, not manipulate, the credence levels of the functional attributes. Several attributes used in this study can be statistically differentiated in terms of their credence level, and the means of the confidence ratings follow an intuitive pattern. Even some counterintuitive results, such as the low confidence in "leg room" of airlines can be understood as a result of the industry's widely used practice of offering small leg space, which reduces the confidence on an apparent experience attribute. However, the means of the confidence ratings have similar values, and the variance is high. Moreover, the way people assess credence levels varies substantially. In all but one of the categories, there is no association between the attributes and the order in which they are perceived in terms of the credence level. That is, besides providing small attribute differentiation, the perceived confidence ratings may represent different constructs for different people. This way, the test of the hypotheses that involve measures of attribute credence level may have been jeopardized by excessive noise.

Consideration Set Formation Decisions

Two hypotheses were offered in Chapter 4 with respect to the effect of social involvement on the consideration set formation. The first posits a main effect of social involvement on the inclusion of a product in the consideration set (H1). The second states that the importance of the construct is moderated by the consumer's personal values related to social issues (H2).

Hypothesis 1 is supported by the data. When the companies are reported as being exceptionally good in activities denoting social involvement, their probability of being considered is higher than when they are reported as just average. This is true for an average consumer, across all brands in the categories. Among twelve cases, only two of the brands have nonsignificant parameter estimates for social involvement, which may denote brand idiosyncrasies. As a matter of fact, the two exceptions, Northwest airlines and Micron computers, have in common having the smallest market shares in their categories, at least in the area where the sample was collected. Although this is weak evidence, it may be that the consideration of brands with lower market presence is in fact less sensitive to social involvement. One possibility is that consumers simply do not demand excellence in social involvement from companies with relatively smaller market presence. Another explanation could be that when consumers have less experience with and knowledge about a brand, there are fewer negative past experiences and less negative information to be overcome by high social involvement. However, further research would be needed not only to assure that market presence moderates the effect of social involvement on brand consideration but also to investigate the mechanism by which this may happen.

The moderating effect of personal social values on the importance of social involvement for consideration set formation (H2) received mixed support from the data. A significant interaction is present for at least some brands in the four categories (see Table 3, above). However, depending on the category, and also on the specific brand, the direction of the interaction effect is different. The lack of a more defined pattern occurs in models employing either of the two personal social values, a more community centered social value (SV1) or a more general human society oriented social value (SV2).

The significant effects in the airline and computer categories are positive, indicating that consumers whose personal social value is high place higher importance on social involvement when deciding whether to consider a brand. This is what the rationale for H2 predicts. However, some brands in the health plan and mattress categories have significant negative interaction effect. Moreover, the direction of the effects depends on which social value is being employed. Specifically, Kaiser health care plans shows a negative effect for SV1 and a positive one for SV2. Again, it is possible that these results arise from idiosyncrasies of the brands. For instance, Kaiser is a nationally known health care company, which is uncommon in the industry. One possible explanation for this shift may be that consumers high on SV1 think that a national company competing with local companies is high on social involvement only to present itself as a more community-oriented company. The fact that social involvement is more valued by consumers high on SV2 supports this argument. Other brand idiosyncrasies not contemplated in the model may be playing a role in the other cases where a negative or a nonsignificant effect is present. Such cases highlight the need to expand the model in order to explain the moderating effects of personal social values on the importance of social involvement for consideration set formation.

One alternative explanation for the mixed results is that the measure of personal values is not capturing true personal social values. This is a possibility, given that social desirability bias may inflate the ratings of social values. Moreover, if the sample suffers from self-selection, it is possible that respondents willing to answer about more technical categories (airlines and computers) are less susceptible to social desirability bias than those willing to respond about less technical categories (health plans and mattresses). This is because the more technologically oriented people drawn by the research may tend to be less social desirability-prone, leading to less inflated social value scores.

It may also be that in fact consumers give importance to social involvement even when they do not have high personal social values. One possible explanation for the apparent paradox is that consumers' roles in society impose socially concerned consumption. Society may impose its values on consumers even when they do not share such values. Symbolic consumption through peer pressure has been documented in the marketing literature, and this is a mechanism that does not necessarily depend on personal values.

In sum, the availability of different explanations indicates that the influence of personal social values on the importance consumers place in social involvement has yet to be investigated.

Choice Decisions

The hypotheses regarding choice decisions predict a more complex set of effects of social involvement than those concerning the consideration set formation. Hypotheses H3 and H4 are the choice counterparts of H1 and H2 in consideration set formation. They predict a main effect of social involvement, and a moderating effect of the personal social values on it. Hypothesis H5 introduces moderating effects of social involvement on the perception of the functional attributes, following a signaling rationale for uncertainty reduction. H6 is the counterpart of H5 for a second variable—expertise—that should also be linked to uncertainty reduction. Finally, H7a and b deal with alternative moderating effects of social involvement on the perception of price.

A significant main effect of excellence in social involvement, contrasted to an average posture, supports H3 for each of the three brands in all four categories in this study. Moreover, with the treatments utilized in this research, the effect-size of social involvement is not just residual but reaches about half of the magnitude of the effect of technical expertise, a variable usually more regarded in managerial considerations. The size of the effect is also comparable to the average effect of being "much better than industry standards" in the functional attributes used in the study. However, it must be kept in mind that while "excellence" in social involvement and expertise are treated in this research as information provided by an independent source, being "much better than industry standards" on the functional attributes is credited to company-reported information. This difference in treatment may have weakened the relative importance of the functional attributes.

The importance of social involvement, as treated in this study, is also comparable to the importance of a fifteen-to-twenty percent decrease in price, for all brands in three of the categories.[1] The exception is the airline category, where the main effect of price is twice as large as that of social involvement. One possible explanation could be that the price elasticity of social involvement is smaller the smaller the prices in the product or service category involved. However, as other factors may be acting to differentiate the categories, further research is needed to address the issue. Even though these findings are not intended to claim a dollar-value for social involvement, given the specificity of the two-level manipulation employed, they serve as a first approximation for that figure, at least in situations that resemble the treatments used here.

H4 predicts a higher importance of social involvement in the utility formation for individuals who have high social values. The data produced mixed results across brands and categories. Some complex characteristics of brands, categories, and even type of social value may be playing a role, preventing the data from supporting H4. Alternatively, personal social values do not affect the importance of social involvement, as most of the cases seem to indicate, and only some very peculiar unmeasured characteristics of the brands make the interaction term significant. The alternative explanations discussed above for the consideration models also applies to the influence of personal social values on choice behavior.

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[1] Besides this main effect, more dollar-value should be credited to social involvement for its interaction with price, which acts by reducing price sensitivity.

Hypothesis H5 is central to the conceptualization that social involvement signals shared values, thus reducing the perceived uncertainty (or increasing consumer's confidence) in a firm's claims about the functional attributes of its products or services.

The first inspection of the models suggests that the data is not supportive of H5. As seen in Table 4 above, significant interaction effects of social involvement and some of the attributes appear in each of the four categories. However, in all cases across brands and categories, even when the interaction parameter estimate is not significant, the importance weight of the attribute is smaller when excellence in social involvement is present. This is the opposite of the expectation of H5. According to the signaling view, if a firm is socially involved, the uncertainty in its claims about attribute performance should decrease. Therefore, claims about high attribute performance should have a greater weight in the composition of the utility. This would lead to interaction terms in the same direction of the main effects of the attributes. Moreover, the effect should become larger with increased credence. What the direction of the interaction terms in the estimated models is saying is that the presence of high social involvement decreases the importance of the attribute.

A possible explanation for the direction of the interaction effects found in the model may be the strength of the manipulation of social involvement. Some respondents may have chosen only or mostly alternatives high on social involvement. This would have reduced the importance of the attributes under the high social involvement treatment, resulting in the negative interaction parameters. Moreover, if a sufficiently large number of respondents used such decision heuristic, this effect may have hindered any moderating effects of social involvement in the direction of enhancing the attributes' main effects.

Assuming that some of the respondents did not use a decision heuristic that places such a heavy weight on the strong manipulation of social involvement, it may be possible to single out subsamples for which the predicted moderating effects of social involvement can be uncovered. A natural way of doing it would be excluding from the sample those respondents who choose alternatives high in social involvement a large number of times, among the sixteen tasks. Figure 4 above shows the behavior of the interaction parameters for subsamples formed by retaining respondents with increasingly larger maximum number of choices of high social involvement alternatives. The four attributes in three of the categories, and two of the attributes in health plans have positive interaction parameters for subsamples that sufficiently constrain the number of high socially involved choices. Moreover, as a general rule, the p-values associated with the interaction parameters have lower—in some cases, in the significant region—values for samples that have a size large enough but were constructed with sufficiently restrictive maximum number of high social involvement choices by the respondent.

Consistent across categories, such results indicate that high social involvement may in fact increase the attribute importance, at least for consumers who do not overly weight the importance of social involvement. This evidence partially supports H5. However, no evidence has been found that the positive interaction is related to the attribute credence levels, as further predicted in H5a and H5b. In three of the categories the introduction of the triple-interaction terms of social involvement, attribute level, and attribute confidence level does not significantly improve the models estimated with the reduced data sets. This could be due simply to small sample sizes when the dataset is restricted, or to a lack of consistency in the consumer evaluation of attribute credence level, as the analysis performed in the previous chapter suggests. However, another aspect to be considered is that there is no match between the interaction terms with significant positive parameters in the models estimated with reduced data sets, and the attributes with lower average confidence level. The only exception is in the category of health care plans, for which the two most credence-like attributes have significant positive interaction parameters when sufficiently restricted subsamples are used. Mismatches occur in each of the three other categories, suggesting that the matches are due to chance.

In summary, H5 has only limited support from the data. Only respondents who do not place high weight on social involvement place higher importance on the functional attributes in the presence of excellence in social involvement. Moreover, even in such cases the significant interactions cannot be linked to high attribute credence levels.

Hypothesis H6 is the counterpart of H5 for the firm's technical expertise. The rationale behind H6 is that consumer uncertainty about the claims on the functional attributes can be reduced by other cues, one of them being technical expertise.

The data do not support H6 to any extent. The manipulation of technical expertise was identical to the manipulation of social involvement. As with social involvement, the parameter estimates of the interaction of excellence in technical expertise and attribute level are significant for some attributes, but not for the others. However, in all cases the parameters are negative, indicating that the importance of the attributes decreases in the presence of high expertise. Moreover, unlike the case of social involvement, the estimation of models using subsamples formed by the exclusion of the respondents who chose high expertise alternatives a large number of times do not provide evidence to the contrary (Figure E-1, in Appendix E). Therefore, the firm's technical expertise seems to act simply as an additional functional attribute. Its presence is not only a source of utility but also reduces the importance of the functional attributes in the composition of the utility. There is no evidence in the data that it may reduce the uncertainty in a firm's claims about attribute performance.

The last hypotheses refer to alternative moderating effects of social involvement on the perception of price. One possibility is that social involvement reduces price sensitivity (this is H7a). An alternative explanation is that social involvement affects the perception of price in an unfavorable way, either by implying that it unnecessarily raises the price, or is intended to convey a "non-sincere" image of social concern (H7b).

The data favor H7a. In all the categories in this study, the sign of the parameter estimate for the interaction of social involvement and price indicates that, in the presence of excellence in social involvement, the negative contribution of price to utility is decreased. For two of the categories, the parameter is significant. However, as with the interactions of social involvement and the attributes, it is possible that the strength of the manipulation of social involvement hinders an effect that would enhance the negative contribution of price to the utility. Performing an analysis similar to that performed previously, by excluding respondents who chose a large number of high social involvement alternatives, does not yield evidence to support this possibility. All four categories show positive social involvement by price interactions for data sets restricted to any extent (as it can be seem in Figure E-2, in Appendix E).

What differentiates price from the functional attributes is that price is an objective construct. Even if it is self-reported by a firm, there is no uncertainty associated with it. This is not the case with other company-reported attribute levels. These have some performance uncertainty associated with them, which may be an explanation for the different behavior of the parameters under constrained subsamples.

In sum, the hypotheses about choice received partial support from the data. First, social involvement does have a main effect on a product or service's choice probability. Moreover, the magnitude of the effect of excellence in social involvement on choice behavior can be comparable to the effect of relevant functional attribute performance reported by the company as "much better than industry standards." In addition, for the categories in this research, the main effect of social involvement offsets from approximately half to the full utility decrease from a 15 to 20% price increase. Second, no definite evidence was found that personal social values moderate the importance of social involvement in utility formation. The results vary across brands, categories, and even type of social value utilized. Therefore, either the importance of social involvement does not depend on the personal social values, except for some idiosyncratic cases, or a deeper understanding of the issue requires an expansion of the model to incorporate other aspects affecting the relationship. Third, only limited evidence was found in support of the idea that the perceptions of attribute performance are enhanced for highly socially involved firms. Across consumers, a sufficiently high level of social involvement may in fact hinder any effect, by reducing the importance of the attributes. As for technical expertise, no evidence whatsoever indicates that it can act as a reducer of the uncertainty about the firm's claims on its attributes. Finally, evidence was found that consumers put less weight on price when firms are highly socially involved.

Managerial Implications

Managers have been making decisions on whether or not to become socially involved. Investment in socially oriented actions have to be weighed against their effects on business performance and competitiveness, even when managers are altruistically inclined to sponsor social causes. Social investments have been economically justified in terms of their positive effects on the workforce and on funding sources, but such justifications have limits. Moreover, in a number of cases there has been a conscious effort to communicate firms' social involvement beyond the workforce and funding pools. Firms' existing and potential consumers are particularly targeted by communication efforts. However, the literature lacks a better understanding of whether and to what extent consumers are willing to pay for the firms' social involvement. This research indicates that social involvement can have a substantial influence on consumer behavior.

The issue of how substantial it is relates to the specific manipulation levels utilized in the survey. Perfect awareness of social involvement is not always attained in the real world. Even less likely would be having such information backed by an independent source. However, the strength of the effect registered under such an ideal scenario indicates that the influence of social involvement on consumer behavior may be more than just marginal.

The effect of social involvement is significant both on consideration set formation and choice. This has strategic implications. Consumers probably have thresholds of social involvement level, below which they do not even consider an alternative. The average effect of these thresholds across respondents leads to the importance weight estimated in the consideration model. Therefore, firms may engage in social actions in order to stay above the threshold level of a certain number of consumers. On the other hand, choice is affected, and social involvement can be regarded as another attribute that adds utility to the product or service in the same fashion as other functional attributes do. Therefore, it can be offered as a product or service differential. The probability of choice increases when firms engage in social actions. Moreover, this seems to be true across a number of categories, even though there is some evidence that the dollar-value of social involvement may vary across categories. These results provide economic justification to engage in social actions.

Even though consumers place substantial weight on social involvement, the results do not allow linking it to the consumers' personal values, at least for some brands/categories. This suggests that the effects of social involvement would not be *a* *priori* tied to specific segments of consumers who have strong concerns for social issues. It may be that consumers place importance on social involvement in response to society's pressure, resulting in symbolic consumption. This mechanism does not require personal social values. Therefore, at least for brands/categories in which personal social values do not have an effect, the use of social involvement as a marketing tool does not require segmentation. That is, actions of social involvement do not have to target specific groups of consumers on the basis of their personal values but may be used to affect choice (and consideration) in the whole market. Therefore, economic justification for social involvement does not depend on the response of specific segments.

Another result of managerial interest is the fact that social involvement reduces the negative weight of price on the utility composition. This can be important, particularly when strategies of premium pricing are practiced. In such cases, it is desirable that higher prices find some sort of justification among consumers, and social involvement may help in that direction.

Only limited evidence was found about effects of social involvement on uncertainty reduction. Moreover, the results suggest that consumers do not clearly differentiate the attributes' credence level. Keeping in mind that more research is needed on this issue, the results provide limited evidence that social involvement may in fact reduce the overall uncertainty in a product or service's performance claims. Capturing this effect in the survey may have been offset by an effect in the opposite direction, but it may be present. This would suggest that products and services with uncertain performance image may benefit the most from social involvement. This would be the case, for instance, of products or services from companies young in a market, or in categories where the quality is inherently hard to assess, such as medical services, or insurance companies. Notice, however, that the small differences in the overall confidence level across the categories in this research did not allow it to be evaluated, and more research will be needed.

In sum, this results of this research provide economic justification for social involvement. The effect of social involvement can be substantial if compared with other attributes. Moreover, the effect seems to be present in a variety of product and service categories. Furthermore, no clear evidence has been found that the effects depend on consumers possessing strong personal social values, suggesting no segmentation effect with respect to social values. Finally, social involvement reduces the importance consumers may place on price, making it a desirable adjunct to high price strategies.

Limitations of the Study and Future Research

This research supported some of the formulated hypotheses and did not support or provided limited evidence for others. In particular, the core hypothesis predicting the enhanced importance of the functional attributes for socially involved firms received only limited support, and no link could be established with the credence level of the attributes. However, the analysis performed shows that the hypothesis cannot be dismissed. At least for some people, attributes seem to be perceived as more important when the firm is socially involved. The operationalization of this research prevented a separation of two opposing effects. Future research will have to address the issue of separating the two effects, or isolating the effect that seems to have been hindered.

For the complete sample of respondents, attribute importance weight decreased in the presence of high social involvement. An apparent cause for this finding is the strength of the manipulation. The treatment used in this research not only thoroughly informed but also depicted as unquestionable, the social involvement conditions. It is unlikely that consumers have full awareness of the level of social involvement of manufacturers and providers of products and services they consume. Exceptions would be consumers with very high concerns for social causes, such as the so-called green consumers. These consumers would gather information about social involvement and decide based on it. For this segment of consumers it is plausible that functional attributes lose importance in the presence of social involvement. This may not be the case for a large number of consumers. The majority of the consumers may only be vaguely aware of the firms' social involvement and decide largely on the basis of other characteristics. In this case, social involvement would be part of a frame of reference. It is for consumers in this situation that social involvement could be used as a cue as to the trustworthiness of the firm's claims.

Besides the strength of the manipulations, two other factors may have contributed to the results obtained. First, self-selection is a possibility. Given that the response rate was just slightly above one tenth, there is a possibility that the sample was biased towards consumers with some kind of identification with social involvement. Second, social desirability may have played a role, even though the results of Pretest 3 suggest otherwise. If social desirability is a factor, it would have increased the propensity of choice of socially involved alternatives. In both cases, the results would have been driven towards a reduction in the attribute importance weight in the presence of social involvement.

In the event of any of the three causes—over-manipulation of social involvement, sample self-selection, and social desirability—or of a combination, the results obtained in this research would not reflect the effects of social involvement on the average consumer. These issues need to be addressed in future research.

Two different approaches for overcoming these limitations are discussed here. The first involves keeping the general structure of this research and either reducing the strength of the treatment, or simply measuring *a priori* perceptions of social involvement. The former track has the drawback of requiring a complex balancing of treatment strength. The latter option would draw a more realistic picture of existing market forces and would eliminate the sources of bias discussed above. However, existing perceptions of social involvement may be too weak and undifferentiated. Moreover, other sources of trustworthiness could be confounded with social involvement.

A second approach involves measuring the effects of social involvement on attribute beliefs and evaluating the mediating role of uncertainty reduction. This approach provides a direct test of the theory and may be used to improve the choice model. The aggregation of information about latent variables influencing the choice decision process has been proposed by McFadden (1986). The estimation process becomes more complex, but estimation in stages is feasible and produces consistent, though inefficient parameter estimates. Of course, obtaining data about attribute uncertainty and beliefs for each choice scenario may prevent the use of a within-subject design, adding practical difficulty to data collection. On the other hand, the practicality of obtaining a large sample may increase if a student subject pool is used. The results of this research do not support a role for personal social values for some categories, and the values homogeneity of a student pool becomes less of a concern.

Another limitation of this research that has to be addressed refers to the credence level of the attributes. In spite of the efforts in the pretest phase, the attributes/categories in this research presented a high variation in the relative perceived credence levels across attributes. This suggests that if an effect of attribute credence level is to be captured, future research may need to manipulate it. Otherwise, uncertainty reduction should be directly measured. Moreover, it is possible that the perceived uncertainty is so vague at the attribute level of analysis that the search for an uncertainty reduction effect should rely on a different source of performance uncertainty. One possibility would be working with overall credence levels of categories and comparing the effect of social involvement across them. The complexity would arise from having to control for other sources of differentiation across the categories.

Some results indicate brand or category-specific parameters. Further research should test expanded models, with variables that could explain such differences. This may be particularly important in understanding the role of personal social values.

Another issue that deserves future investigation is the source of utility attained by social involvement. This involves narrowing down the knowledge to whether consumers weight social involvement because they feel good about contributing to society, or because of the symbolic meaning of consumption of products and services by socially involved companies. That is, the source of utility can be either of a more intimate, personal order, or driven by the roles of consumers in society. The former source is linked to personal values, while the latter is related to the social environment. In either case, the ultimate source is a social enculturation process. However, a practical difference arises from the fact that personal values are enduring, while consumer's social roles constitute a more dynamic process. The latter source seems to be more likely, given the mixed results about the importance of personal values on the weight that social involvement has on utility. However, a specific investigation confronting both sources of social involvement utility is needed to solve the question.

In sum, further research is needed to address two main points unresolved in this research. First, whether a more diffuse representation of social involvement, which is probably more prevalent among consumers, enhances the perception of functional attribute performance. Some evidence in this research points in this direction but is not conclusive. Second, whether the credence level of the attributes can be differentiated and play a role in the choice decision process in the presence of social involvement. To accomplish this, either attribute performance uncertainty has to be manipulated, the uncertainty reduction needs to be assessed, or the attribute credence level has to be dropped in favor of another source of uncertainty.

Conclusion

This research contributes to the knowledge of marketing by exploring the ways by which consumers value social involvement in their choice process. The findings support a consumer based economic motivation for firms to become socially involved. Hence, the findings justify the use of social involvement as a marketing strategy tool.

Moreover, this research shows that the effects of social involvement are relevant both in the consideration set formation and in the choice phases of the consumer decision process. This suggests distinct ways by which social involvement may be strategically valuable. First, social involvement can be used to expand the potential consumer base for a product or service, by increasing the probability of consumers considering it. For a level of social involvement perceived as sufficiently high, its importance for consideration set formation can be of the same magnitude as being "much better than industry standards" in each of a number of functional attributes, or of a considerable lesser price. Second, social involvement can be used as added value to increase choice probability among alternatives that make the consideration set. As in the consideration set formation, the relative importance of social involvement for choice can also be substantial when compared to that of price and other functional attributes. Specifically, social involvement was found to have an additional effect of reducing the importance weight attributed to price. That is, the dollar-value of social involvement surpasses its main effect, because it also decreases price sensitivity.

The research also indicated that social involvement has indirect effects on utility composition. Significant interaction effects of social involvement with functional attributes and price are present. However, with respect to the functional attributes, the direction of the interaction effects does not conform to a signaling-based explanation. Moreover, attribute credence level does not add significant explanatory capability to the choice model. In principle, such results indicate that the signaling conceptualization does not hold. Nonetheless, further investigation of the data shows that social involvement may in fact work in the direction of enhancing the importance weight of the attributes, at least for respondents who do not choose overwhelmingly based on social involvement. This is an indication that the predicted interaction effect may have been hindered by some sort of research artifact, possibility the use of too strong a manipulation of social involvement. These results mean that an uncertainty reduction effect cannot be ruled out.

This research did not support the idea that consumers need to have high personal social values to place importance on social involvement. If this is true, segmentation of consumers based on personal social values becomes less likely to produce results.

Future research will have to address the possible effect of social involvement on uncertainty reduction, for this research neither supports it nor rules it out. This research demonstrated the ability of random choice modeling to uncover direct and indirect effects of social involvement. The use of choice modeling expanded to incorporate latent attitudinal constructs may prove helpful in assessing the role of uncertainty reduction in consumer decision processes. Another issue to be addressed in future research is the high heterogeneity in the consumer assessment of attribute credence level. Future investigations will have to manipulate this construct, or a different source of uncertainty generating asymmetric information will have to be sought.

APPENDIX A
QUESTIONNAIRE – PRETEST 1

We have listed several products and services below. Under each of them, we have listed several things or attributes which you might use when evaluating a new product or service of the kind. First, if we have forgotten things or attributes that you think are important in evaluating it, please write these things in the blank spaces.

We are interested in how confident you would be in buying the products at different points in time. Specifically, we want to know confident you would be in evaluating things about a product: before you try (but after you have heard advertising for it and/or read the product label); after you have tried it once; and after having used it for a year. Please, indicate it (for each aspect and for the overall product or service) by circling one of the numbers:

Circle "**7**" if you would be absolutely confident
Circle "**6**" if you would be very confident
Circle "**5**" if you would be somewhat confident
Circle "**4**" if you would be neither confident or unconfident
Circle "**3**" if you would be somewhat unconfident
Circle "**2**" if you would be very unconfident
Circle "**1**" if you would be absolutely unconfident

We are also interested in how important the things or attributes are when you evaluate each kind of product or service. Please use the shaded column to rate the attribute importance, by circling one of the numbers:

Circle "**5**" if you think the attribute is very important in evaluating the product or service
Circle "**4**" if you think the attribute is important in evaluating the product or service
Circle "**3**" if you think the attribute is neither important nor unimportant in evaluating the product or service
Circle "**2**" if you think the attribute is unimportant in evaluating the product or service
Circle "**1**" if you think the attribute is very unimportant in evaluating the product or service

FAST FOOD RESTAURANT	DEGREE OF CONFIDENCE IN A *NEW* PRODUCT OF THIS KIND			IMPORTANCE OF THE ATTRIBUTE
	after hearing/reading about, but before trying it	after having tried it once	after prolonged use	
uses high quality ingredients	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
food flavor	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
heath awareness	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
nutrition	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
OVERALL degree of confidence in the service	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	

LIFE INSURANCE	after hearing/reading about, but before trying it	after having tried it once	after prolonged use	ATTRIBUTE IMPORTANCE
terms and conditions fit one's needs	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
hassle free claim handling	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
provides thorough information	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
breadth of coverage	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
OVERALL degree of confidence in the service	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	

SNEAKERS/TENNIS SHOES	after hearing/reading about, but before trying it	after having tried it once	after prolonged use	ATTRIBUTE IMPORTANCE
real leather top	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
comfort	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
durability	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
long-term feet health protection	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
OVERALL degree of confidence in the product	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	

PREMIUM ICE CREAM	DEGREE OF CONFIDENCE IN A *NEW* PRODUCT OF THIS KIND			IMPORTANCE OF THE ATTRIBUTE
	after hearing/reading about, but before trying it	after having tried it once	after prolonged use	
high quality ingredients	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
flavor	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
concerned with providing healthy food	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
calorie content	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
OVERALL degree of confidence in the product	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	

CAR	after hearing/reading about, but before trying it	after having tried it once	after prolonged use	ATTRIBUTE IMPORTANCE
economy of use (mileage)	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
resale value	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
reliability	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
safety	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
OVERALL degree of confidence in the product	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	

DEPARTMENT STORE	after hearing/reading about, but before trying it	after having tried it once	after prolonged use	ATTRIBUTE IMPORTANCE
merchandise assortment	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
hassle free in returns	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
fashionable products	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
quality of the merchandise for the price	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
OVERALL degree of confidence in the service	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	

FINANCIAL BROKER	DEGREE OF CONFIDENCE IN A *NEW* PRODUCT OF THIS KIND			IMPORTANCE OF THE ATTRIBUTE
	after hearing/reading about, but before trying it	after having tried it once	after prolonged use	
results' performance	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
custom-tailored service	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
risk level	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
charges load	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
OVERALL degree of confidence in the service	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	

FROZEN ENTRÉE	after hearing/reading about, but before trying it	after having tried it once	after prolonged use	ATTRIBUTE IMPORTANCE
quality of the ingredients	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
calories content	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
flavor	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
OVERALL degree of confidence in the product	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	

GASOLINE	after hearing/reading about, but before trying it	after having tried it once	after prolonged use	ATTRIBUTE IMPORTANCE
cleans engine	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
provides better mileage	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
friendliness to the environment	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
OVERALL degree of confidence in the product	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	

LONG DISTANCE CARRIER	DEGREE OF CONFIDENCE IN A *NEW* PRODUCT OF THIS KIND			IMPORTANCE OF THE ATTRIBUTE
	after hearing/reading about, but before trying it	after having tried it once	after prolonged use	
sound clarity	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
best overall rates	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
service friendliness	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
OVERALL degree of confidence in the service	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	

SUPERMARKET	after hearing/reading about, but before trying it	after having tried it once	after prolonged use	ATTRIBUTE IMPORTANCE
perishables kept at correct refrigeration	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
variety of products	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
price competitiveness	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
quality of the products for the price	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
OVERALL degree of confidence in the service	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	

MICROCOMPUTER	after hearing/reading about, but before trying it	after having tried it once	after prolonged use	ATTRIBUTE IMPORTANCE
reliability	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
promptness of the technical support	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
components' quality	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
speed (relative to other comparable models)	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
OVERALL degree of confidence in the product	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	

DISCOUNT STORE

	DEGREE OF CONFIDENCE IN A *NEW* PRODUCT OF THIS KIND			IMPORTANCE OF THE ATTRIBUTE
	after hearing/reading about, but before trying it	after having tried it once	after prolonged use	
competitiveness in price	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
merchandise selection	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
stands behind products it carries	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
quality of the merchandise for the price	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
OVERALL degree of confidence in the service	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	

PHOTO CAMERA

	after hearing/reading about, but before trying it	after having tried it once	after prolonged use	ATTRIBUTE IMPORTANCE
picture quality	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
readiness of assistance in case of repairs	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
durability	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
framing or viewfinder accuracy	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
OVERALL degree of confidence in the product	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	

TIRES FOR AUTOS

	after hearing/reading about, but before trying it	after having tried it once	after prolonged use	ATTRIBUTE IMPORTANCE
treadlife	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
fuel economy	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
riding comfort	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
grip in skidding situations	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
OVERALL degree of confidence in the product	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	

BABY FOOD	DEGREE OF CONFIDENCE IN A *NEW* PRODUCT OF THIS KIND			IMPORTANCE OF THE ATTRIBUTE
	after hearing/reading about, but before trying it	after having tried it once	after prolonged use	
nutrition	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
safety of use	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
flavor	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
quality of the ingredients	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
OVERALL degree of confidence in the product	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	

HAIR SHAMPOO	after hearing/reading about, but before trying it	after having tried it once	after prolonged use	ATTRIBUTE IMPORTANCE
gives hair body	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
ease of combing	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
hair rejuvenation	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
long-term hair health	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
OVERALL degree of confidence in the product	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	

BREAKFAST CEREAL	after hearing/reading about, but before trying it	after having tried it once	after prolonged use	ATTRIBUTE IMPORTANCE
nutrition	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
flavor	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
fat content	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
heart healthy	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
OVERALL degree of confidence in the product	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	

STORE BRAND MEDICATION	DEGREE OF CONFIDENCE IN A *NEW* PRODUCT OF THIS KIND			IMPORTANCE OF THE ATTRIBUTE
	after hearing/reading about, but before trying it	after having tried it once	after prolonged use	
effectiveness	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
flavor	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
long-term side effects	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
OVERALL degree of confidence in the product	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	

AUTO INSURANCE	after hearing/reading about, but before trying it	after having tried it once	after prolonged use	ATTRIBUTE IMPORTANCE
promptness in claims handling	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
services not related to claims	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
provides thorough information	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
breadth of coverage	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
OVERALL degree of confidence in the service	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	

HOTEL	after hearing/reading about, but before trying it	after having tried it once	after prolonged use	ATTRIBUTE IMPORTANCE
personnel courteousness	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
room quality	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
tailored services	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
OVERALL degree of confidence in the service	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	

FACIAL MOISTURIZING LOTION	DEGREE OF CONFIDENCE IN A *NEW* PRODUCT OF THIS KIND			IMPORTANCE OF THE ATTRIBUTE
	after hearing/reading about, but before trying it	after having tried it once	after prolonged use	
not oily when applied to the skin	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
reduces wrinkles	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
smoothes the skin	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
prolonged moisturizing effect	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
OVERALL degree of confidence in the product	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	

SOFT DRINK	after hearing/reading about, but before trying it	after having tried it once	after prolonged use	ATTRIBUTE IMPORTANCE
quenches thirst	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
calorie content	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
not harmful to one's health	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
OVERALL degree of confidence in the product	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	

AIRLINE	after hearing/reading about, but before trying it	after having tried it once	after prolonged use	ATTRIBUTE IMPORTANCE
ground service	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
in-flight service	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
airplane maintenance	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
on-time performance	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
pilots' training	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
OVERALL degree of confidence in the service	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	

PHYSICIAN	DEGREE OF CONFIDENCE IN A *NEW* PRODUCT OF THIS KIND			IMPORTANCE OF THE ATTRIBUTE
	after hearing/reading about, but before trying it	after having tried it once	after prolonged use	
friendliness/courteousness	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
quality	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
tailored services	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
OVERALL degree of confidence in the service	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	

APPENDIX B
QUESTIONNAIRE – PRETEST 2

Below, there is a list of companies which market consumer products or services. Please, rate your opinion on each of them for:

- the expertise of the company, that is, its ability to providing the product or service; and
- the company's social responsibility, that is, the degree you perceive the company to care for and to be involved with issues which are meaningful to society.

Please, rate the companies' expertise by circling one of the numbers:

- Circle "7" if your opinion about the company's expertise is very favorable
- Circle "6" if your opinion about the company's expertise is favorable
- Circle "5" if your opinion about the company's expertise is somewhat favorable
- Circle "4" if your opinion about the company's expertise is neither favorable nor unfavorable
- Circle "3" if your opinion about the company's expertise is somewhat unfavorable
- Circle "2" if your opinion about the company's expertise is unfavorable
- Circle "1" if your opinion about the company's expertise is very unfavorable

Similarly, rate the companies' social responsibility by circling one of the numbers:

- Circle "7" if your opinion about the company's social responsibility is very favorable
- Circle "6" if your opinion about the company's social responsibility is favorable
- Circle "5" if your opinion about the company's social responsibility is somewhat favorable
- Circle "4" if your opinion about the company's social responsibility is neither favorable nor unfavorable
- Circle "3" if your opinion about the company's social responsibility is somewhat unfavorable
- Circle "2" if your opinion about the company's social responsibility is unfavorable
- Circle "1" if your opinion about the company's social responsibility is very unfavorable

If you have not heard of a specific company, you may leave both ratings unanswered. However, if you have heard of it, please circle your answer, even if solely based on your opinion.

product or service	**company**	**EXPERTISE**							**SOCIAL RESPONSIBILITY**						
airline	Delta	1	2	3	4	5	6	7	1	2	3	4	5	6	7
airline	Northwestern	1	2	3	4	5	6	7	1	2	3	4	5	6	7
airline	United	1	2	3	4	5	6	7	1	2	3	4	5	6	7
airline	USAir	1	2	3	4	5	6	7	1	2	3	4	5	6	7
auto battery	AC Delco	1	2	3	4	5	6	7	1	2	3	4	5	6	7
auto battery	Die Hard	1	2	3	4	5	6	7	1	2	3	4	5	6	7
auto battery		1	2	3	4	5	6	7	1	2	3	4	5	6	7

product or service	company	EXPERTISE							SOCIAL RESPONSIBILITY						
auto insurance	Geico	1	2	3	4	5	6	7	1	2	3	4	5	6	7
auto insurance	Progressive	1	2	3	4	5	6	7	1	2	3	4	5	6	7
auto insurance	State Farm	1	2	3	4	5	6	7	1	2	3	4	5	6	7
baby food	Beech-Nut	1	2	3	4	5	6	7	1	2	3	4	5	6	7
baby food	Gerber	1	2	3	4	5	6	7	1	2	3	4	5	6	7
baby food	Nestlé	1	2	3	4	5	6	7	1	2	3	4	5	6	7
breakfast cereal	General Mills	1	2	3	4	5	6	7	1	2	3	4	5	6	7
breakfast cereal	Kellogg's	1	2	3	4	5	6	7	1	2	3	4	5	6	7
breakfast cereal	Nabisco (Post)	1	2	3	4	5	6	7	1	2	3	4	5	6	7
car	Chrysler	1	2	3	4	5	6	7	1	2	3	4	5	6	7
car	Ford	1	2	3	4	5	6	7	1	2	3	4	5	6	7
car	General Motors	1	2	3	4	5	6	7	1	2	3	4	5	6	7
car	Honda	1	2	3	4	5	6	7	1	2	3	4	5	6	7
car	Mitsubishi	1	2	3	4	5	6	7	1	2	3	4	5	6	7
car	Toyota	1	2	3	4	5	6	7	1	2	3	4	5	6	7
department store	Dillard's	1	2	3	4	5	6	7	1	2	3	4	5	6	7
department store	JC Penney	1	2	3	4	5	6	7	1	2	3	4	5	6	7
department store	Sears	1	2	3	4	5	6	7	1	2	3	4	5	6	7
discount store	K-Mart	1	2	3	4	5	6	7	1	2	3	4	5	6	7
discount store	Target	1	2	3	4	5	6	7	1	2	3	4	5	6	7
discount store	Wal-Mart	1	2	3	4	5	6	7	1	2	3	4	5	6	7
drugstore	Eckerd	1	2	3	4	5	6	7	1	2	3	4	5	6	7
drugstore	Rite Aid	1	2	3	4	5	6	7	1	2	3	4	5	6	7
drugstore	Walgreens	1	2	3	4	5	6	7	1	2	3	4	5	6	7
facial lotion	L'Oréal	1	2	3	4	5	6	7	1	2	3	4	5	6	7
facial lotion	Oil of Olay	1	2	3	4	5	6	7	1	2	3	4	5	6	7
facial lotion	Pond's	1	2	3	4	5	6	7	1	2	3	4	5	6	7
fast-food	Burger King	1	2	3	4	5	6	7	1	2	3	4	5	6	7
fast-food	Hardee's	1	2	3	4	5	6	7	1	2	3	4	5	6	7
fast-food	McDonald's	1	2	3	4	5	6	7	1	2	3	4	5	6	7
fast-food	Wendy's	1	2	3	4	5	6	7	1	2	3	4	5	6	7
financial broker	Merrill Lynch	1	2	3	4	5	6	7	1	2	3	4	5	6	7
financial broker	Smith Barney	1	2	3	4	5	6	7	1	2	3	4	5	6	7
financial broker	Suntrust	1	2	3	4	5	6	7	1	2	3	4	5	6	7
frozen entrée	Healthy Choice	1	2	3	4	5	6	7	1	2	3	4	5	6	7
frozen entrée	Nestlé's Stouffer	1	2	3	4	5	6	7	1	2	3	4	5	6	7
frozen entrée	Tyson	1	2	3	4	5	6	7	1	2	3	4	5	6	7
gasoline	Amoco	1	2	3	4	5	6	7	1	2	3	4	5	6	7
gasoline	Exxon	1	2	3	4	5	6	7	1	2	3	4	5	6	7
gasoline	Mobil	1	2	3	4	5	6	7	1	2	3	4	5	6	7
gasoline	Shell	1	2	3	4	5	6	7	1	2	3	4	5	6	7
gasoline	Texaco	1	2	3	4	5	6	7	1	2	3	4	5	6	7

product or service	company	EXPERTISE							SOCIAL RESPONSIBILITY						
hair shampoo	Clairol	1	2	3	4	5	6	7	1	2	3	4	5	6	7
hair shampoo	L'Oréal	1	2	3	4	5	6	7	1	2	3	4	5	6	7
hair shampoo	Procter & Gamble	1	2	3	4	5	6	7	1	2	3	4	5	6	7
hotel	Best Western	1	2	3	4	5	6	7	1	2	3	4	5	6	7
hotel	Days Inn	1	2	3	4	5	6	7	1	2	3	4	5	6	7
hotel	Holiday Inn	1	2	3	4	5	6	7	1	2	3	4	5	6	7
hotel	Marriot	1	2	3	4	5	6	7	1	2	3	4	5	6	7
hotel	Ramada	1	2	3	4	5	6	7	1	2	3	4	5	6	7
ice-cream	Ben & Jerry's	1	2	3	4	5	6	7	1	2	3	4	5	6	7
ice-cream	Breyers	1	2	3	4	5	6	7	1	2	3	4	5	6	7
ice-cream	Häagen-Dazs	1	2	3	4	5	6	7	1	2	3	4	5	6	7
life insurance	Liberty	1	2	3	4	5	6	7	1	2	3	4	5	6	7
life insurance	Northwestern	1	2	3	4	5	6	7	1	2	3	4	5	6	7
life insurance	Transamerica	1	2	3	4	5	6	7	1	2	3	4	5	6	7
long distance co.	AT&T	1	2	3	4	5	6	7	1	2	3	4	5	6	7
long distance co.	MCI	1	2	3	4	5	6	7	1	2	3	4	5	6	7
long distance co.	Sprint	1	2	3	4	5	6	7	1	2	3	4	5	6	7
microcomputer	Dell	1	2	3	4	5	6	7	1	2	3	4	5	6	7
microcomputer	Gateway	1	2	3	4	5	6	7	1	2	3	4	5	6	7
microcomputer	IBM	1	2	3	4	5	6	7	1	2	3	4	5	6	7
microcomputer	NEC	1	2	3	4	5	6	7	1	2	3	4	5	6	7
photo camera	Canon	1	2	3	4	5	6	7	1	2	3	4	5	6	7
photo camera	Kodak	1	2	3	4	5	6	7	1	2	3	4	5	6	7
photo camera	Pentax	1	2	3	4	5	6	7	1	2	3	4	5	6	7
soft drink	Coca-Cola	1	2	3	4	5	6	7	1	2	3	4	5	6	7
soft drink	Pepsico	1	2	3	4	5	6	7	1	2	3	4	5	6	7
soft drink	Seven-Up	1	2	3	4	5	6	7	1	2	3	4	5	6	7
supermarket	Albertson's	1	2	3	4	5	6	7	1	2	3	4	5	6	7
supermarket	Food Lion	1	2	3	4	5	6	7	1	2	3	4	5	6	7
supermarket	Kash N' Karry	1	2	3	4	5	6	7	1	2	3	4	5	6	7
supermarket	Publix	1	2	3	4	5	6	7	1	2	3	4	5	6	7
supermarket	Winn-Dixie	1	2	3	4	5	6	7	1	2	3	4	5	6	7
tennis shoes	LA Gear	1	2	3	4	5	6	7	1	2	3	4	5	6	7
tennis shoes	Nike	1	2	3	4	5	6	7	1	2	3	4	5	6	7
tennis shoes	Reebok	1	2	3	4	5	6	7	1	2	3	4	5	6	7
tires for autos	Firestone	1	2	3	4	5	6	7	1	2	3	4	5	6	7
tires for autos	Goodyear	1	2	3	4	5	6	7	1	2	3	4	5	6	7
tires for autos	Michelin	1	2	3	4	5	6	7	1	2	3	4	5	6	7

TIME YOU NEEDED TO FILL OUT UP TO THIS POINT: ________

VALUE SURVEY

Listed below are a list of values in alphabetical order. Your task is to rate each of them according to their importance to YOU, as guiding principles in your life.

Please, study the list carefully and then rate all the values according to their importance to you:

- Circle "**7**" if you find the value to be extremely important as a guiding principle to your life
- Circle "**6**" if you find the value to be important as a guiding principle to your life
- Circle "**5**" if you find the value to be somewhat important as a guiding principle to your life
- Circle "**4**" if you find the value to be neither important nor unimportant as a guiding principle to your life
- Circle "**3**" if you find the value to be somewhat unimportant as a guiding principle to your life
- Circle "**2**" if you find the value to be unimportant as a guiding principle to your life
- Circle "**1**" if you find the value to be extremely unimportant as a guiding principle to your life

VALUE	**IMPORTANCE**						
A clean environment (i.e., preserved for the future)	1	2	3	4	5	6	7
A comfortable life (i.e., a prosperous life)	1	2	3	4	5	6	7
A sense of accomplishment (i.e., a lasting contribution)	1	2	3	4	5	6	7
A world at peace (i.e., free of war and conflict)	1	2	3	4	5	6	7
A world of beauty (i.e., beauty of nature and the arts)	1	2	3	4	5	6	7
An exciting life (i.e., a stimulating, active life)	1	2	3	4	5	6	7
Charity giving (i.e., giving to the poor)	1	2	3	4	5	6	7
Equality (i.e., brotherhood, equal opportunity for all)	1	2	3	4	5	6	7
Family security (i.e., taking care of loved ones)	1	2	3	4	5	6	7
Freedom (i.e., independence, free choice)	1	2	3	4	5	6	7
Happiness (i.e., contentedness)	1	2	3	4	5	6	7
Helping others (i.e., working for another person)	1	2	3	4	5	6	7
Helping the community (i.e., volunteering for society)	1	2	3	4	5	6	7
Inner harmony (i.e., freedom from inner conflict)	1	2	3	4	5	6	7
Mature love (i.e., sexual and spiritual intimacy)	1	2	3	4	5	6	7
National security (i.e., protection from attack)	1	2	3	4	5	6	7
Pleasure (i.e., an enjoyable, leisurely life)	1	2	3	4	5	6	7
Salvation (i.e., saved, eternal life)	1	2	3	4	5	6	7
Self-respect (i.e., self-esteem)	1	2	3	4	5	6	7
Social recognition (i.e., respect, admiration)	1	2	3	4	5	6	7
True friendship (i.e., close companionship)	1	2	3	4	5	6	7
Wisdom (i.e., a mature understanding of life)	1	2	3	4	5	6	7

TIME YOU NEEDED TO FILL OUT THIS PAGE: _____

APPENDIX C
PRETEST TABLES

Table C-1: Attribute Confidence Level in Pretest 3

category	attribute	mean confidence level	standard error
airlines[a] (*n*=20)	1. leg room	4.9	1.10
	2. in-flight service	4.5	1.12
	3. on-time performance	4.2	1.58
	4. pilot training	5.1	1.13
computers[b] (*n*=20)	1. picture quality	4.9	.99
	2. speed performance	5.1	1.05
	3. technical support promptness	4.7	1.25
	4. reliability	4.7	1.34
health care plans[c] (*n*=20)	1. covered diseases/conditions	4.7	1.30
	2. speedy approval of procedures	3.6	1.41
	3. standards for certifying doctors	4.0	1.37
	4. less bureaucratic controls	3.1	.93
mattresses[d] (*n*=20)	1. number of coils	5.1	1.87
	2. sag	4.5	1.39
	3. durability	4.8	1.65
	4. long-term health protection	4.4	1.67
tires[e] (*n*=20)	1. treadlife	4.8	1.56
	2. grip in skidding situations	4.5	1.54
	3. riding comfort	4.3	1.49
	4. fuel economy	4.4	1.42

([a]) difference between attributes 1 and 3 has t-statistic=1.63
([b]) difference between attributes 2 and 3 has t-statistic=1.10
([c]) difference between attributes 1 and 4 has t-statistic=4.48
([d]) difference between attributes 1 and 4 has t-statistic=1.25
([e]) difference between attributes 1 and 3 has t-statistic=1.04

Table C-2: Perceived Social Involvement (SI) and Technical Expertise (TE) as Functions of the Manipulations, in Pretest 3

category	dependent variable	intercept (*t-statistic*)	SI manipulation (*t-statistic*)	TE manipulation (*t-statistic*)
airlines (*n*=20)	perceived SI	16.73 (*13.97*)	4.70 (*3.70*)	.40 (*.32*)
	perceived TE	25.75 (*18.68*)	1.08 (*.74*)	6.53 (*4.46*)
computers (*n*=20)	perceived SI	14.20 (*12.62*)	8.12 (*6.81*)	.84 (*.70*)
	perceived TE	26.50 (*17.22*)	1.65 (*1.01*)	4.35 (*2.67*)
health care plans (*n*=20)	perceived SI	16.27 (*16.31*)	6.51 (*6.15*)	-.59 (*-.56*)
	perceived TE	25.03 (*21.00*)	1.45 (*1.14*)	6.59 (*5.21*)
mattresses (*n*=20)	perceived SI	14.55 (*12.01*)	6.58 (*5.15*)	1.03 (*.80*)
	perceived TE	24.89 (*17.88*)	1.20 (*.81*)	6.80 (*4.61*)
tires (*n*=20)	perceived SI	14.70 (*13.38*)	9.20 (*7.88*)	-1.20 (*-1.03*)
	perceived TE	26.40 (*20.10*)	1.12 (*.80*)	6.07 (*4.36*)

APPENDIX D
QUESTIONNAIRE – MAIN STUDY

Research Setting

Assume that you are selecting an airline to fly on from Orlando to New York. The trip is a vacation that you will be taking with your spouse or friend. You will be asked to choose a flight from three alternatives. Below and on the following pages you will be given information about the airline companies and flights.

On the following pages, you will make choices among the three airlines in each of several different situations, or scenarios. In each choice scenario, the flight characteristics vary. Only information about the companies remains the same across scenarios.

The company information was taken from an independent publication of the aviation industry. According to this publication, the companies in this study differ only in terms of their social responsibility and technical expertise:

- **Social responsibility** is determined by the company's activities to protect the environment, donate money to charities, have employees volunteer for community programs, and donate transportation to needy people requiring travel for medical reasons.
- **Technical expertise** is the knowledge and skills possessed by the airline company. Some factors considered by the publication in evaluating expertise are management experience, research and engineering capability, and sophistication of systems used to run the airline.

Based on the publication, three major airline companies are rated as follows (companies in alphabetical order):

	Northwest	**United**	**USAir**
Social Responsibility	❖	❖	—
Technical Expertise	—	❖	—

where: — means that *the company is average*
❖ means that *the company is exceptionally good*

In the scenarios on the following pages, the flight characteristics are not provided by an independent source. Instead, this information is self-reported by the airlines themselves, using the following scale:

— means *just meets industry standards*
❖ means *much better than industry standards*

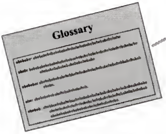
Making Choices

Assume that you want to fly round-trip from Orlando to New York for a vacation with your spouse or friend. On the following pages you will find sixteen distinct situations or scenarios. In each of them, the three companies described above offer you different information about their flight characteristics. Of course, the information about the companies is the same across scenarios.

What you have to do is to choose a flight from the three choices. One of your choices could be rejecting all three of these airlines and taking another airline flight. Then, indicate any alternative(s) that you would not even consider purchasing (if this is the case).

Enclosed is a **glossary** to explain what the information on each of the characteristics mean. Please take a few minutes to read the glossary before going through the choice scenarios. If you want to, you may keep the glossary at hand as you go through the scenarios. The following example will show you how to complete this task.

EXAMPLE:



Step 1: Read the attached Glossary, in order to understand the exact meaning of the characteristics.

Step 2: Compare the information on the company and characteristics of each of the three alternatives.

	information source	Northwest	United	USAir	none of these alternatives
social responsibility	independent publication	❖	❖	—	
technical expertise	independent publication	—	❖	—	
price	self-reported	$269	$319	$269	
leg room	self-reported	—	❖	❖	
travel time	self-reported	❖	—	—	
on-time performance	self-reported	❖	—	❖	
maintenance quality	self-reported	—	❖	—	
Please indicate your choice (check only one)		☐	☐	☑	☐
Please indicate any alternative(s) you would not consider purchasing		☐	☑	☐	

Step 3: Mark one box corresponding to your choice (or 'none of these,' if you reject all three).

Step 4: Mark the box(es) for any of the alternatives that you would not even consider as an option, given the information on the company and flight characteristics.

Choice Scenario 3

	information source	Northwest	United	USAir	none of these alternatives
social responsibility	independent publication	❖	❖	—	
technical expertise	independent publication	—	❖	—	
price	self-reported	$269	$319	$319	
leg room	self-reported	—	❖	❖	
travel time	self-reported	❖	—	❖	
on-time performance	self-reported	—	❖	—	
maintenance quality	self-reported	—	❖	❖	
Please indicate your choice (check only one)		☐	☐	☐	☐
Please indicate any alternative(s) you would not consider purchasing		☐	☐	☐	

Legend: — means *the company is average*, or *just meets industry standards*
❖ means *the company is exceptionally good*, or *much better than industry standards*

Choice Scenario 4

	information source	**Northwest**	**United**	**USAir**	**none of these alternatives**
social responsibility	independent publication	❖	❖	—	
technical expertise	independent publication	—	❖	—	
price	self-reported	$319	$269	$319	
leg room	self-reported	❖	❖	❖	
travel time	self-reported	❖	❖	—	
on-time performance	self-reported	❖	—	—	
maintenance quality	self-reported	—	❖	—	
Please indicate your choice (check only one)		☐	☐	☐	☐
Please indicate any alternative(s) you would not consider purchasing		☐	☐	☐	

Legend:
— means *the company is average*, or *just meets industry standards*
❖ means *the company is exceptionally good*, or *much better than industry standards*

Choice Scenario 5

	information source	**Northwest**	**United**	**USAir**	**none of these alternatives**
social responsibility	independent publication	❖	❖	—	
technical expertise	independent publication	—	❖	—	
price	self-reported	$319	$269	$319	
leg room	self-reported	—	—	❖	
travel time	self-reported	—	❖	❖	
on-time performance	self-reported	—	❖	❖	
maintenance quality	self-reported	❖	❖	—	
Please indicate your choice (check only one)		☐	☐	☐	☐
Please indicate any alternative(s) you would not consider purchasing		☐	☐	☐	

Legend: — means *the company is average*, or *just meets industry standards*
❖ means *the company is exceptionally good*, or *much better than industry standards*

Your Ratings of the Airlines

Please give us your feeling about each of the three airlines by circling a number based on agreement or disagreement with the following statements (1 = strongly disagree , 7 = strongly agree):

	Northwest	United	USAir
	strongly disagree — strongly agree	strongly disagree — strongly agree	strongly disagree — strongly agree
Quite knowledgeable people work for this firm.	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
This firm cares about people.	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
This firm has a better ability to provide services than the average competitor.	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
For this firm, helping others is just as important as making profits.	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
This firm has an excellent management team.	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
This firm's flights are overpriced.	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
This firm helps other people.	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
This firm is really an expert in the airline business.	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
This firm is socially responsible.	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
In general, this firm charges higher prices than its competitors.	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
This firm is very well managed.	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
I think this firm could charge less for its flights.	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
This firm uses state-of-art methods in running its business.	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7

Confidence in the Reported Information

The airline companies report on their flight characteristics. Depending on the characteristic, you may trust more or less the word of the company. Please tell us how confident you are when an airline tells you the following characteristics of its flights. For each characteristic, circle a number from 1 to 7 (where: 1 = not very confident, 7 = very confident).

AIRLINE FLIGHT CHARACTERISTICS	confidence in the information provided by a company not very confident … very confident
leg room	1 2 3 4 5 6 7
travel time	1 2 3 4 5 6 7
on-time performance	1 2 3 4 5 6 7
maintenance quality	1 2 3 4 5 6 7
OVERALL CONFIDENCE	1 2 3 4 5 6 7

Your Personal Background

As a final part of this survey, please answer about yourself:

Age: ☐15-25 ☐26-35 ☐36-45 ☐46-55 ☐OVER 55

Gender: ☐FEMALE ☐MALE

Occupation: ______________________________

Race: ☐AFRICAN-AMERICAN ☐ASIAN ☐HISPANIC
☐NATIVE-AMERICAN ☐WHITE/CAUCASIAN ☐OTHER

Education: ☐LESS THAN HIGH SCHOOL ☐HIGH SCHOOL OR SIMILAR ☐SOME COLLEGE
☐COLLEGE DEGREE ☐GRADUATE SCHOOL

Household income: ☐LESS THAN $25,000 ☐BETWEEN $25,001 AND $50,000
(per year, pre-taxes) ☐BETWEEN $50,001 AND $100,000 ☐OVER $100,000

Your Values

People's values may be related to the way they choose products. Below you find a list of values in alphabetical order. Please rate each of them according to their importance to YOU personally, as guiding principles in your life.

Please study the list carefully and then rate all the values according to their importance to you (1 = not very important to you, 7 = very important to you).

VALUE	IMPORTANCE not very important						very important
A comfortable and prosperous life	1	2	3	4	5	6	7
A world at peace	1	2	3	4	5	6	7
A world of natural beauty	1	2	3	4	5	6	7
An environment preserved for future generations	1	2	3	4	5	6	7
An exciting, stimulating, active life	1	2	3	4	5	6	7
Assisting the needy	1	2	3	4	5	6	7
Beauty of the arts	1	2	3	4	5	6	7
Being respected as a citizen	1	2	3	4	5	6	7
Charitable giving	1	2	3	4	5	6	7
Close relationships with others	1	2	3	4	5	6	7
Community respect	1	2	3	4	5	6	7
Environmental concern	1	2	3	4	5	6	7
Equal opportunity for all	1	2	3	4	5	6	7
Freedom of choice	1	2	3	4	5	6	7
Happiness	1	2	3	4	5	6	7
Helping other people	1	2	3	4	5	6	7
Helping the community	1	2	3	4	5	6	7
Inner peace	1	2	3	4	5	6	7
Making a lasting contribution	1	2	3	4	5	6	7
Mature, intimate love	1	2	3	4	5	6	7
National security	1	2	3	4	5	6	7
Pleasure and joy	1	2	3	4	5	6	7
Salvation, eternal life	1	2	3	4	5	6	7
Self-respect	1	2	3	4	5	6	7
Social recognition	1	2	3	4	5	6	7
Taking care of loved ones	1	2	3	4	5	6	7
True friendship	1	2	3	4	5	6	7
Wisdom	1	2	3	4	5	6	7

Glossary

social responsibility: Reflects the company's activities to protect the environment, donate money to charities, have employees volunteer for community programs, and donate transportation to needy people requiring travel for medical reasons.

technical expertise: Represents the knowledge and skills possessed by the airline company, including management experience, research and engineering capability, and sophistication of systems used to run the airline.

price: This is the airline's best round-ticket price for the trip you want to do, as assessed by the travel agents.

leg room: The leg room is determined by the size of the 'pitch' – the spacing between rows of seats. Customers will easily notice differences in leg room.

travel time: The total travel time depends on the number and duration of stops in the airline's hubs, or connection sites.

on-time performance: This is intended to reflect the percentage of flights that arrive within 15 minutes of the scheduled time. The DOT (Department of Transportation) used to supervise the on-time performance, but it no longer does.

maintenance quality: An airline may perform the standard maintenance mandated by the FAA, or do additional, higher quality maintenance checks and sessions. Only the required maintenance is supervised by the federal agency.

APPENDIX E
AUXILIARY TABLES AND FIGURES

Table E-1: List of Companies and Attributes Used in Each Product or Service Category

	Product or Service Categories			
	airlines	computers	health care plans	mattresses
Brand 1	Northwest	Dell	HealthPlus	Sealy
Brand 2	United	Gateway	Humana	Serta
Brand 3	USAir	Micron	Kaiser	Simmons
Attribute 1	leg room	speed performance	smaller deductibles	number of coils
Attribute 2	travel time	reliability	speedy approval of procedures	sag
Attribute 3	on-time performance	technical support promptness	standards for certifying doctors	durability
Attribute 4	maintenance quality	quality of the components	less bureaucratic restrictions over medical work	long-term spinal column protection

Table E-2: Measurement Items of Social Involvement and Technical Expertise

Items Measuring Perceived Social Involvement (Cronbach's α ranging from 0.85 to 0.88)
"This firm cares about people."
"For this firm, helping others is just as important as making profits."
"This firm helps other people."
"This firm is socially responsible."
Items Measuring Perceived Technical Expertise (Cronbach's α ranging from 0.87 to 0.94)
"Quite knowledgeable people work for this firm."
"This firm has a better ability to make (product or service) than the average competitor."
"This firm has an excellent management team."
"This firm is really an expert in the (product or service) business."
"This firm is well managed."

Table E-3: Factor Loadings of the Values Scale Items

item	factor loadings					
	factor 1	factor 2	factor 3	factor 4	factor 5	factor 6
Factor 1—community orientation						
Charitable giving	.80	.20	.05	.01	.22	.15
Helping other people	.77	.22	.19	.09	-.02	.18
Helping the community	.77	.20	.18	.11	.19	.14
Assisting the needy	.76	.34	.06	.10	.12	.10
Close relationships with others	.60	-.02	.37	.26	.06	-.06
Making a lasting contribution [3][a]	.46	.10	.37	.12	.32	-.03
Factor 2—global social orientation						
An environment preserved for future generations	.14	.81	.16	.14	.04	.03
A world of natural beauty [5]	.18	.73	.11	.17	.14	.03
Environmental concern	.26	.72	.22	.04	.19	-.09
A world at peace [4]	.15	.66	.01	.15	-.00	.43
Equal opportunity for all [6]	.44	.49	.18	.05	-.09	.16
Freedom of choice [8]	.03	.46	.24	.26	-.03	.09
Beauty of the arts [5]	.42	.45	.07	.04	.31	-.24
Inner peace [10]	.34	.36	.35	.26	-.20	.22
Factor 3—self-actualization						
Taking care of loved ones [7]	.13	.12	.70	.07	.15	.16
True friendship [17]	.31	.20	.68	.24	.03	.04
Self-respect [18]	.03	.23	.63	.20	.05	.24
Wisdom [15]	.20	.22	.60	-.03	.25	-.00
Factor 4—pleasure of the self						
Happiness [9]	.18	.24	.18	.72	-.08	.16
Pleasure and joy [13]	.17	.17	.20	.71	.20	.10
An exciting, stimulating, active life [2]	.15	.20	-.05	.63	.41	-.15
A comfortable and prosperous life [1]	-.15	.15	.04	.63	.37	.14
Mature, intimate love [11]	.37	-.05	.38	.49	-.05	-.02
Factor 5—social success						
Social recognition [16]	.11	-.01	.17	.28	.70	.13
Community respect	.45	.12	.26	.09	.55	.24
Being respected as a citizen	.39	.16	.14	.13	.52	.26
Factor 6—conservatism						
National security [12]	.07	.19	.11	.19	.29	.72
Salvation, eternal life [14]	.30	-.03	.23	-.01	.06	.67
Eigenvalues	9.41	2.03	1.88	1.46	1.28	1.05

(a) The numbers within the brackets indicate the original Rokeach's item.

Table E-4: Composition of the Values Scale Compared to Previous Research

item	factors in previous research		
	Vinson et al.[b]	Prakash & Munson[c]	Crosby et al.[d]
Factor 1—community orientation			
Charitable giving			
Helping other people			
Helping the community			
Assisting the needy			
Close relationships with others			
Making a lasting contribution [3][a]	V2, V3	P5	C2
Factor 2—global social orientation			
An environment preserved for future generations			
A world of natural beauty [5]	V2	P1	C1
Environmental concern			
A world at peace [4]	V1	P1, P4	C4
Equal opportunity for all [6]	V1	P3	C1
Freedom of choice [8]	V1, V6		C1
Beauty of the arts [5]	V2	P1	C1
Inner peace [10]	V2	P2	C2
Factor 3—self-actualization			
Taking care of loved ones [7]	V4		C4
True friendship [17]	V5	P2, P3	C2
Self-respect [18]	V2	P2	C2
Wisdom [15]	V2	P2	C2
Factor 4—pleasure of the self			
Happiness [9]	V6	P4	C3
Pleasure and joy [13]	V3	P3	C3
An exciting, stimulating, active life [2]	V3, V5	P2	C3
A comfortable and prosperous life [1]	V3	P2, P5	C3
Mature, intimate love [11]	V5	P6	C2
Factor 5—social success			
Social recognition [16]	V3		
Community respect			
Being respected as a citizen			
Factor 6—conservatism			
National security [12]	V1	P4	C4
Salvation, eternal life [14]	V1, V4	P3	C2

([a]) The numbers within the brackets indicate the original Rokeach's item.

([b]) The factors found by Vinson et al. (1977) were social harmony (V1), self-actualization (V2), personal gratification (V3), security (V4), love and affection (V5), and personal contentedness (V6).

([c]) The factors identified by Prakash and Munson (1985) were aesthetics (P1), sapience (P2), fun and enjoyment (P3), security (P4), workplace ethics (P5), and mature love (P6).

([d]) The factors in Crosby et al. (1990) were idealism (C1), self-actualization (C2), hedonism (C3), and security (C4).

Table E-5: Attribute Confidence Level in the Main Study

category	attribute	confidence level	standard error	t-test* for equality with:		
				att.2	att.3	att.4
airlines (*n*=150)	1. leg room	4.25	1.62	3.15	1.24	0.14
	2. in-flight service	4.70	1.38		3.26	3.96
	3. on-time performance	4.41	1.49			1.59
	4. pilot training	4.25	1.59			
computers (*n*=118)	1. picture quality	5.04	1.48	4.25	5.36	4.30
	2. speed performance	4.50	1.36		2.39	0.14
	3. technical support promptness	4.19	1.50			2.36
	4. reliability	4.48	1.37			
health care plans (*n*=127)	1. covered diseases/conditions	4.42	1.70	4.24	1.33	5.66
	2. speedy approval of procedures	3.78	1.65		3.22	2.79
	3. standards for certifying doctors	4.16	1.79			5.81
	4. less bureaucratic controls	3.45	1.69			
mattresses (*n*=133)	1. number of coils	5.42	1.50	8.77	8.25	9.32
	2. sag	4.14	1.41		0.94	3.64
	3. durability	4.22	1.40			4.61
	4. long-term health protection	3.70	1.74			

* the critical value for the confidence level of 5% is ~1.96

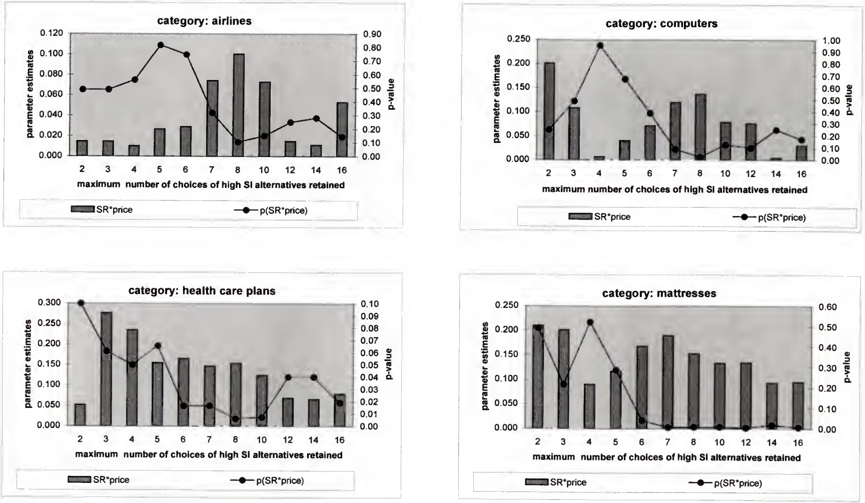


Figure E-1: Behavior of the SI*price parameter with reduced datasets (restricted number of choices of high SI)

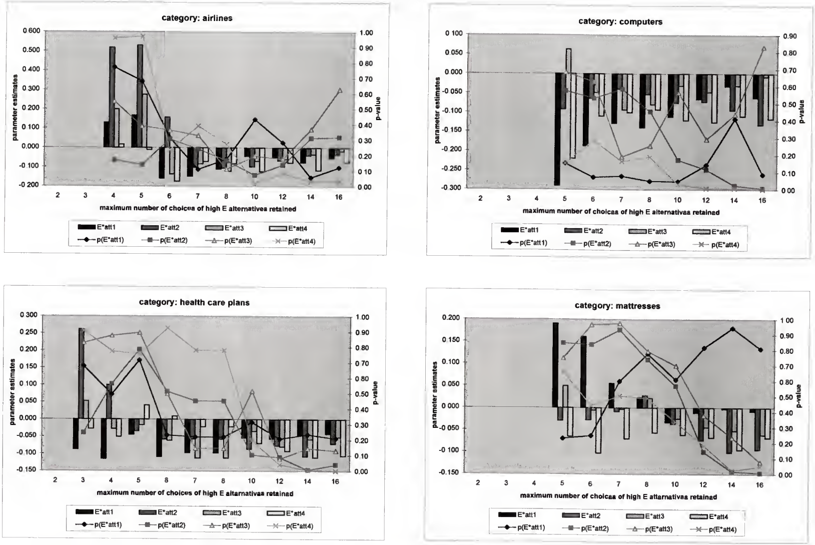


Figure E-2: Behavior of the E*attribute parameters with reduced datasets (restricted number of choices of high E)

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BIOGRAPHICAL SKETCH

André Carlos Martins Menck was born in São Paulo, Brazil, in December 4, 1954. He took his undergraduate studies simultaneously in physics (1976), at the Universidade de São Paulo, and in business administration (1977), at the Escola de Administração de Empresas de São Paulo/Fundação Getúlio Vargas. In the latter, he won the *Bolsa Makro* award for the best graduating marketing student of the year.

He concluded his masters degree in marketing at the Escola de Administração de Empresas de São Paulo/Fundação Getúlio Vargas in 1986, where he defended a dissertation proposing an algorithm to assess areas with potential available demand for grocery stores in metropolitan areas.

The professional experience includes managerial positions at major Brazilian firms in marketing research, retailing, consumer goods manufacturing, and wholesaling. In addition, he did consulting to communication services and public administration.

The marketing teaching experience includes four years at the Fundação Dom Aguirre, of Sorocaba, and eight years at the Universidade Federal de Uberlândia, where he holds an assistant professor position. His academic work includes several papers published or presented at conferences. Among them, one was awarded the coveted Prêmio Losango de Monografias sobre o Varejo – 1991.

Present research interests include retailing, social responsibility, and random utility choice models.

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Barton A. Weitz, Chairman
J.C. Penney Eminent Scholar in Retail Management

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

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